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The Fyfe Report (1947)

Secondary Education

A Report of the Advisory Council on Education in Scotland

Edinburgh: His Majesty's Stationery Office 1947

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[title page]



SCOTTISH EDUCATION DEPARTMENT

SECONDARY EDUCATION

A Report of the Advisory
Council on Education
in Scotland

*Presented by the Secretary of State for Scotland to Parliament
by Command of His Majesty*

EDINBURGH
HIS MAJESTY'S STATIONERY OFFICE: 1947
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PREFATORY NOTE

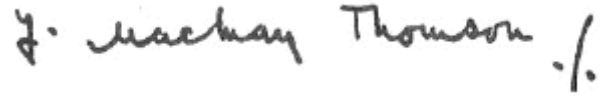
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Primary Education

The text of the 1947 Fyfe
Report was prepared by
Derek Gillard and uploaded
on 3 November 2018.

THE following Report on Secondary Education, submitted to the Secretary of State by the Advisory Council on Education in Scotland, is published in order that it may be available to all who are interested. The recommendations in the Report have still to be considered by the Secretary of State, and in the meantime he should not be regarded as in any way committed to accepting them.



17th October, 1946.

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SECONDARY EDUCATION

REPORT

*To the Rt. Hon. Joseph Westwood, M.P.,
Secretary of State for Scotland.*

Sir,

INTRODUCTORY

1. On 11th February, 1943, the Secretary of State remitted to the Advisory Council - "To review the educational provision in Scotland for young people who have completed their primary education and have not attained the age of eighteen years or discontinued full-time attendance at school, whichever is the later, the examinations for which they may be presented, and the certificates which may be awarded, and to make recommendations."
2. While our remit covers the whole field of secondary education, we have not felt it necessary to be exhaustive but have confined ourselves to those questions about which we and our witnesses felt there was a case for taking stock of the present position.
3. In Appendix I will be found a list of the bodies and individuals who gave oral evidence or submitted memoranda or otherwise assisted the Council in the inquiry. We desire to record our indebtedness to them for their valuable help.
4. Scottish Traditions, Extraneous Duties of Teachers, Experiment and Research, aspects common to both primary and secondary education, have been dealt with generally in our Report on Primary Education. We include the relevant sections, along with the chapter on Transfer from Primary to Secondary Education from the same Report, in Appendix II.

CHAPTER I

HISTORICAL NOTE

5. The terms of our remit do not call for a detailed and systematic account of the growth of secondary education in Scotland, nor would there be any real gain in setting forth at length historical material which is neither unfamiliar nor inaccessible. It will suffice for our purpose to take brief note of certain significant stages and events in the development of post-primary education in Scotland since 1872.
6. Historically there had never been in Scotland such a complete separation of elementary and secondary education as in the Southern Kingdom; and it is noteworthy that, whereas the English Act of 1870 limited grants to elementary education, the Scottish Act of 1872 was of more generous scope, with the result

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that the succeeding years saw a rapid development of post-primary departments. As early as 1878, school boards were empowered to levy rates for the upkeep of the Higher Class Schools provided for in the Act of 1872.

7. Further stimulus came from the institution of the Leaving Certificate Examination in 1888; and when twenty years later school boards were given powers in regard to secondary education co-extensive with those for primary, and an Education Act concerned itself however tentatively with health and nutrition, Scotland was clearly moving towards a national system of secondary education.

8. Added impetus to progress came from the experience of the first world war, and the Education (Scotland) Act of 1915 represented the

largest single advance in the history of secondary education in Scotland. To recognise that primary education must normally end at twelve, to make mandatory free intermediate and secondary schooling for all children able to profit by it, and to constitute education authorities with areas and resources equal to the new tasks, was a remarkable act of enlightened policy. Disappointment that all the hopes raised by the passing of the Act have not been fulfilled must not blind us to its very great significance.

9. In 1924 the Scottish Education Department discontinued the Intermediate Certificate and, to further the free development of the new advanced divisions, instituted the Day School Certificate (Higher) and the Day School Certificate (Lower) to mark the satisfactory completion of three years' and two years' courses respectively. There followed a welcome extension of practical courses for both boys and girls, but their development was slowed by the persisting strength of the bookish tradition in Scottish education, and much of their value was lost through failure to raise the school leaving age or bring into being the compulsory day continuation classes that would have crowned the work of the short-course secondary schools.

10. The same period saw a great change in the staffing of our secondary schools. Till then many of the teachers had the broadly-based culture of the ordinary M.A. degree, and large numbers passed into secondary work after a considerable spell in the primary school, an experience of great pedagogic value. But increasingly after 1915 the qualifications of primary and secondary teachers became sharply differentiated, and within two decades our secondary schools were recruiting in the main honours graduates, whose high academic qualifications had to be paid for in some narrowing of both cultural interest and teaching skill.

11. With the recovery of the country from the severest economic depression of recent times, Parliament in 1936 passed an Act raising the school leaving age to fifteen as from 1st September, 1939, and providing for a reorganisation of secondary education.

12. Giving effect to the provision of the Act, the Department issued early in 1939 a revised Code* to "replace the existing Day Schools Code and Secondary Schools Regulations, to the end that the Department's educational requirements relating to all types of day schools should be combined in one document." Under this seemingly prosaic administrative adjustment was concealed an almost revolutionary educational change, which was quietly introduced by these words of the Explanatory Memorandum,† "It will be noted that the Code now defines the natural divisions of the educational course,

*Day Schools (Scotland) Code, 1939.

†Memorandum Explanatory of the Day Schools (Scotland) Code, 1939. H.M. Stationery Office, 1939, Price 4d.

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and not particular types of school." At last secondary education was officially recognised for what it is—a stage in the schooling of every child, not a particular kind of education to be provided for some but

not for all. The generous spirit of the new Code is well crystallised in the third, section of the Memorandum which we quote:

In drawing up the revised Code an attempt has been made to simplify the requirements of the two existing sets of regulations in such a way that, while the necessary minimum of mandatory general regulation is retained, education authorities and teachers may be given, within these general limits, a considerably greater freedom to devise alternative courses, to introduce new subjects, to try experiments, to plan an organisation appropriate to the special conditions of the area or school, and to arrange such schemes of classification and promotion as modern educational theory and experience suggest.

13. If once again war has imposed delay, there has been twofold compensation. Even before the guns were silent Parliament had passed an Education Act transcending in its scope even the enlightened provisions of the new Code; and the nation itself has emerged from its greatest ordeal socially expectant and demanding that the education of its children shall not fall below the needs and opportunities of the new age.

CHAPTER II

APPROACH TO THE REMIT

14. In our approach to the remit we have naturally been influenced by the Code of 1939 and the Education (Scotland) Act of 1945, but even more so by the complex of feelings and ideas born of the war itself. There is here no conflict of influences: rather has the plain intention of Code and Act alike gained point and fuller justification from the experience of a nation at war.

15. On the side of feeling, our wartime achievements and our shortcomings have worked to the same end - to intensify the urge towards an extension and reform of secondary education. Gratitude for the patience, resourcefulness and fortitude of common folk has made widespread the feeling that the best education the nation can offer is not too good for their sons and daughters. At the same time, the grave weaknesses revealed by the evacuation scheme and by wartime stresses in general show clearly that the new generation needs as well as merits a fuller, wiser schooling.

1. Factors that have influenced Deliberations

16. But, besides the quickened conscience and the stronger urge to action, war has brought much enlightenment regarding both our national and our human situation, and we set down here some of the ideas and recognitions that have influenced our deliberations.

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(1) VALUE AND PRECARIOUSNESS OF OUR LIBERAL WAY OF LIFE

17. There has been a fresh awakening to the value and the precariousness of our liberal way of life. It is clear now that the marriage of freedom and order which democracy presupposes is possible only for a people conscious of its inheritance, united in purpose, and proof against the attacks of sophistry and propaganda; and that these qualities require not merely a literate, but an educated, nation, capable of a high degree of self-discipline, objective judgment and sustained vigilance.

(2) DESIRE TO PRESERVE UNITY REALISED IN WAR

18. There is a deep-felt desire to preserve in peace the unity realised in war, and a recognition that, outside the compulsions of conflict, such unity will spring only from an inspiring purpose, rooted in the deepest convictions of our race, and from a shared education, enabling different social groups to understand and value one another.

(3) REAL WEALTH OF NATION IN CHARACTER AND SKILL OF PEOPLE

19. With our material inheritance much diminished and our position of vantage lost, it is clear as never before that our real wealth is in the character and skill of our people, our hope as a nation in the wisest utilisation of our human resources. And such utilisation implies not merely a training adequate to the vastly greater technological demands of our age, important though that is, but such education as will secure social cohesion and promote the good life of the individual.

(4) SUITABLE SCHOOLING FOR ORDINARY CHILDREN

20. If we have concerned ourselves most with the provision of suitable schooling for ordinary children, it is not because we regard the intellectually-able minority as unimportant but because we think them not too ill-served by those traditional forms of secondary education which were in the first instance designed for such as they. The urgent problem is to evolve a new type of schooling that will suit the many as well as the old fitted the few.

(5) SECONDARY EDUCATION A RIGHT AND NECESSITY

21. In the light of these considerations, it is evident how outmoded is any conception of secondary education as a luxury or a privilege, a social stamp or an aid to careerism. On the contrary, secondary education emerges as one of society's most significant functions; and from the side of the individual it is at once a right and a necessity. When this is recognised, the demand for equality of educational opportunity ceases to sound like the voice of envy: rather does it express the determination of an awakened community that no smallest part of its precious store of talent must be lost.

(6) SECONDARY EDUCATION NOT A KIND BUT A STAGE OF EDUCATION

22. When secondary education is thought of no longer as a particular kind of education but simply as a stage, there follows a fresh awareness of the unity and continuity of an education, as something conterminous with life itself and not limited to either the times or the

appurtenances of formal schooling. This has a threefold and most vital bearing on our Report.

23. Firstly, all that we say hereafter clearly assumes a radical reform of primary education in content and method alike. Not until the vital spirit that informs our best infant departments has taken possession of primary education

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as a whole will the secondary school in its turn be regenerated. Moreover, recognition of the continuity of secondary education with primary must translate itself into practice. Secondary teachers should have some contact with primary schools in their area and some idea of their work and problems: conversely, primary teachers should be reasonably informed about the curricula of the secondary school to which their pupils proceed and about their progress there.

24. Secondly, we postulate equal care for the education of all boys and girls up to eighteen years of age. For many the later years of adolescence will be shared between the junior college and employment: but so far from regarding this as a second-best, we believe that, if certain conditions are fulfilled, it may well be the wisest nurture society can give them. But the conditions are all-important: that the secondary school draws the home into a full and fruitful co-operation; that education authorities regard nothing in the waking life of adolescents as alien to their concern: and that the employer looks on the activity of all under-eighteens as essentially educational, and is prepared to regulate conditions of employment accordingly.

25. Thirdly, secondary education must look forward as well as back. Adult education lies outwith our remit, but we could not disregard the challenge and the promise of it, for here must be the crown of all the schools are called on to do and the proof of how they have done it. To ring down the curtain, even at eighteen, is to mistake the prelude for the play. It will be one of the best proofs that secondary education is playing its part well if it leads on, insensibly and by an inner compulsion, to the education of adult life, whether it be the formal sort that consists in conference, lecture and discussion group or that more personal kind which a man pursues in his solitariness or in the company of his friend. It has been well said that "the secondary school curriculum by itself is rootless and roofless" - and no less wisely that "there are no 'finishing schools'."

(7) NATIONALISTIC SENTIMENTS PERSIST

26. Even before the coming of the atomic bomb, it was plain that the development of science, transport, trade and communications had made a jest of frontiers and that no solution of our major political and economic problems could now be looked for at the national level. Yet nationalistic sentiments persist with tragic intensity and explosive force, and, in this fatal discord between its feelings and the realities of its situation, the modern world may well find-

"a subtler Sphinx renew
Riddles of death Thebes never knew."

All sober thinking about the task of the secondary school must be coloured by the desperate urgency of this problem.

(8) CHANGE OF EMPHASIS NECESSARY

27. Another aspect of the same problem confronts us in the realisation that the rate of change has speeded up to a degree that makes the life of our forebears seem almost different in kind from our own. Admittedly, the great things of the spirit abide, and it remains education's business to hand on the tradition. But we cannot now, as in ages of less rapid change, equip our young with a stock of ideas, conventions and sentiments adequate to life's situations. Their world is shifting and changing with a rapidity that precludes all such provision for unborn to-morrow: "the breaking of new ground rather than

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the treading of safe ground has become the task" of all education. And so there must be a change of emphasis. There must be less store set by knowledge, often irrelevant and quickly antiquated, and more concern to create in the young certain attitudes of mind. Above all, the new generation needs to unite with mental poise and serenity a nimble intelligence, a high degree of adaptability, and a wider range of understanding.

28. The term "Christian Democracy" holds its own ambiguity: yet better perhaps than any other it summarises the ideals that have governed our thinking about the task of the secondary school. For Christian education means much more than finding a place in the curriculum for religious and moral instruction. It involves acceptance of a doctrine of human nature which courageously applied will determine priority of aim in education, or better still reconcile seemingly conflicting aims; it must enter into all debate on the content of schooling; and, above all, it decisively establishes the child as an end in himself, requiring an approach to him which is patient, persuasive, and at every point respectful of his growth toward personality.

29. Democracy imports no fresh scale of values: it applies rather than adds to the affirmations of Christian philosophy. It moves between the same two poles of freedom and ordered unity, of individuality and integration. Hence the education which gives expression to it must not merely tolerate but actually delight in variety of gifts. It must welcome and foster diversity, and be content with no unity less rich than that of orchestral harmony, wherein each element is finely attuned to the whole and none is overborne.

2. Primacy Given to Two Criteria

30. All these considerations led us to give primacy to two questions, as touchstones of every educational claim:

- (1) How does this stand related to the reality of adolescent life, with its immediate needs, instinctive tendencies and inescapable limitations?

(2) Is this ultimately significant for all boys and girls as human beings in a free and well-ordered community?

31. The application of these two criteria involves no rejection of lesser or partial aims but merely their subordination to the universal requirements of the individual and of society. Accordingly, we have taken account of the need for the craftsman and the technologist, nor have we forgotten those who are to carry on the professional and academic traditions of our country. The needs of these and other groups are legitimate interests, which are limited by one condition only - that the advantage of some must never be secured by sacrificing the educational wellbeing of the many.

32. We had not gone far before we realised that the tests we had proposed would lead us to a radical reconsideration of the secondary curriculum, with no undue tenderness towards vested interests or the merely traditional, and no disposition to admit new claimants simply because we had revoked or limited the holdings of some who had been long in possession.

33. Succeeding chapters will bring out more fully the implications of this one, while our remarks on the curriculum, together with our main recommendations, will indicate in what sense and degree we have found that the new age requires a new schooling.

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CHAPTER III

SECONDARY EDUCATION AS IT IS

34. After long preoccupation with educational ideals and a mass of evidence which for the most part stresses defects and urges reform, it becomes all too easy to forget how much is good and sound in the schools as we know them. It is right, therefore, that, before going on to consider secondary education as it might be, we should briefly record how much in recent development and existing practice is worthy of praise and preservation.

35. If we except only the excessive recourse to the specialist teacher and the demand of more and more professional bodies for the Leaving Certificate, an extension of the examination cult for which the schools are not responsible, it can be fairly claimed that there is no major respect in which secondary education in Scotland between the two wars has not made and maintained a real advance.

36. Secondary schools are happier places. Truancy is rare, and the resort to punishment far less frequent, especially for deficiencies in work. Teachers have become less aloof and authoritarian in attitude, recognising that it takes nothing from a man's dignity to give a reason as well as an order. And, in the great development of extra-curricular activities, they have been rewarded for much uncovenanted service by gaining new insight into the nature of growing boys and girls, and by finding fresh channels of influence.

37. The community ideal (like the ideal community) may still lie far ahead, but already the schools have left equally far behind any dreary travesty of their function which made them but places of stereotyped

instruction and enforced learning. Nor does the record of teachers' service in wartime, a record of versatility, skilful improvisation and proved capacity in many fields, give much countenance to an idea which is strangely prevalent in certain quarters - that the shortcomings of the secondary school are due in the main to the limited outlook or feckless temper of those who teach there.

38. At no time has there been in the secondary schools of Scotland so large a body of teachers adequate alike in scholarship and in professional training. If, as a Council, we have called for better, as well as more teachers, that is testimony to our sense of the immense difficulty and importance of the tasks that lie ahead; and the position is paralleled in every profession and sphere of responsible work, where the increasing complexity of our world prompts the demand for far ampler supplies of high intelligence and character than our race has yet been able to produce. Hence nothing we have said belies due recognition of the competence and zeal of existing staffs.

39. The effects of improved staffing have been shown, if not in an absolute raising of standards, certainly in the far wider diffusion of first-rate work. It is safe to claim that in scores of secondary centres throughout Scotland to-day pupils are enabled to do work of a range and quality that would a generation ago have been found only in a limited number of more favoured schools. Nor is this the only way in which opportunity has been expanded. What still remains to do should not blind us to how much has been done in the widening and liberalising of the curriculum: the development of science and practical work of many kinds, of art and music, of physical training and games, is impressive, and both in experience gained and in material provision made. the way is prepared for further and more daring advance.

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40. The same is true of subject content within the curriculum. If there has not been the revolution desired, neither has there been the stagnation alleged. To compare textbooks and schemes of work with those of 25 years ago is to realise how substantial is the improvement in every subject; how much pedantry has been banished and lumber discarded; how real, even if still insufficient, has been the movement away from the formal and schematic towards a more realistic and child-centred treatment of all school work.

41. Even more significant is the sheer quantitative growth of secondary education in Scotland within the period under review. Indeed on a closer examination, it appears that many of our problems and discontents arise from this single fact. To school a limited and selected class is relatively easy: to evolve a secondary education for the whole adolescent population is a task the immensity of which is only now breaking on us, because only in recent years have we come near to attempting it. Impatience here is understandable but unhelpful-and it means that our time sense is badly at fault. Even in the most favourable circumstances, so great an undertaking must have taken long to come to fruition. And how unpropitious the times have been needs no reminder to a generation that has seen the exhaustion and impoverishment of one war linked to the darkening apprehension

of another by a period of economic depression and political confusion.

42. We deal more fully in a later chapter with the difficulties that have beset the short-course schools in their work with the mass of non-bookish children. Here we would stress that any conclusions reached must be tentative, since our witnesses were by no means agreed as to the relative extent of success and failure. Three things it is safe to claim: that in this new work success has often gone hand in hand with venture, seldom if ever with caution; that, even at their worst, the new secondary courses have represented a great advance on the earlier policy of leaving so many over-twelves as unregarded "tops" in elementary schools, denied opportunities of practical work and with nothing more appetising to nourish their growing powers than the "cauld-kail-het-again" of the primary curriculum; and lastly, that, if all the best practices to be found in any school were adopted everywhere, we should even now be within sight of our goal.

43. Perhaps, however, the most relevant, as it is certainly the most heartening, piece of evidence about the work of the secondary schools in the last two decades lies in the achievements of Scottish youth during the war years. In them neither nature nor nurture was ill-matched with the hour, and no school which had a share in the making of them can be denied its battle honours and some title to the nation's respect.

44. But, to the discerning eye, the most hopeful feature of our secondary schools is precisely their own dissatisfaction with things as they are. Were they solidly complacent, we might well despair; but no criticism from outside is sharper edged than the judgment the best of our teachers are passing on the adequacy of their own work. Obstinate questionings. an exasperated sense of frustration, a painful awareness of the gulf between intention and achievement. these are signs not indeed of perfect educational health at the moment but of a vitality that promises well for the future.

45. In the first chapter of our Report on the Training of Teachers*, we stressed that these are years of transition from an old education to a new, a time marked by the familiar signs of maladjustment, conflicting aims and

*Cmd. 6723.

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broken purposes. All this but mirrors the general state of a society where something is dying and something struggling to be born. Nor need there be impatience if the process of change seems slow and fitful. After all, the direction of education is still largely in the hands of men whose formative years antedate the emergence of our profoundly changed situation, and there is a real sense in which the demands of revolution are never fully met save by the sons of revolution itself.

46. It remains to sound a note of warning. Just because our times are critical and our need so great, there is a panic tendency to ask of the schools more than they can give. For formal education is but one of many agencies shaping the lives of youth. Press, radio, cinema,

church, club, home and street all have their share, and it is a dangerous assumption that the school can be a ready substitute where some of these influences fail and a sufficient antidote where others become potent for evil. Admittedly, the secondary school should embody the best values of society and transmit them worthily to the new generation, and its functions cannot remain for ever unchanged in a changing world: but there is no alchemy by which education can transmute into fine gold the base metal of a distracted and materially-minded age. To demand of the secondary day school, what could hardly be attempted even by the boarding school, controlling the whole waking life of the adolescent, can have only one effect - to depress those who are already in the teaching profession and to deter many of the ablest and most sincere from entering it. We believe that the schools can and will play a great part in the new world that is taking shape, but nothing could be more ruinous than to ask the impossible of them. History is strewn with the wreckage of such millennia! hopes.

CHAPTER IV

THE AIM OF SECONDARY EDUCATION

47. What is the aim of education is a question that admits of no answer without a reference to ultimate convictions about human nature and destiny, about society and how the individual stands related to it. Merely to change singular to plural and list a variety of desirable aims is no help, for education then becomes an arena of conflicting claims and the question persists - what is end and what merely means, what has first place and what is subordinate?

1. Primacy of the Individual

48. As a Council, we are already committed to an answer. The stress we have laid on religion in report after report clearly implies a general acceptance of the great tradition of Christian theism as regulative for our national life and education. Now, if there is any affirmation of Christian philosophy which lies outside the field of controversy, it is the sacredness and abiding significance of the individual, the insistence that the natural and social environment exists to promote the growth of free and rational beings, of spiritual personalities. Keats put it in a poet's way, when he described the world as "the vale of soulmaking". For us then the conclusion is inescapable that the chief end of education is to foster the full and harmonious development of the individual. We do not suggest that only on a Christian basis can such an educational

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doctrine be built: on the contrary, all healthy democratic thinking, as opposed to state-worship, must remain unimpressed by the mere power and permanence of organised society, unless in so far as it "helps to fashion desirable patterns of individual life". What may be claimed is that such a concept of education finds in the Christian view of man its sufficient rationale and the necessary safeguards against anti-social excess or distortion.

49. This uncompromising insistence on the primacy of the individual may seem strange at a time when events are impressing on us the need for social cohesion and a high sense of national duty; but we hope to show that our thesis is hospitable to all that society may justly ask of the individual. Meanwhile, we cite in our support the testimony of one of the wisest and most balanced educational thinkers of our time. In the preface to a new edition of his great book,* first published twenty-five years ago, Sir Percy Nunn writes, "The central thesis of the book remains unchanged: it maintains that the primary aim of all educational effort should be to help boys and girls to achieve the highest degree of individual development of which they are capable."

50. If the end of education is individual excellence, we are at once led to ask how does the individual life develop, and the answer immediately brings back all the social references and claims that the doctrine of self-realisation seemed for a moment to banish. For the reply must be that selves can develop only in accordance with their own nature and that their nature is social. This is finely brought out in the words of the late Lord Balfour, which Sir Percy Nunn quotes - applying to the individual what was originally said about a coalition of free and self-governing communities: "who feel that they are never more themselves, never more masters of their own fate, than when they recognise that they are parts of a greater whole, from which they can draw inspiration and strength, and to which they can give inspiration and strength."†

2. Secondary School Should Provide Rich Social Environment

51. The long physical dependence of the human young and the permanent interdependence of all human beings on the material plane have their full counterpart in the growth of mind and spirit; and Christian teaching is at one with Greek philosophy in finding human life meaningless apart from society. It is clear, therefore, that our supreme requirement of the secondary school must be something which hitherto has been much less highly regarded, that it should provide a rich social environment where adolescence grows in character and understanding through the interplay of personalities rather than by the imparting of knowledge. Education thus presents itself as at once preparation for life and an irreplaceable part of life itself: hence, the good school is to be assessed not by any tale of examination successes, however impressive, but by the extent to which it has filled the years of youth with security, graciousness and ordered freedom, and has thus been a seed-bed for the flowering in due season of all that is of good report.

52. The great need of the child for security springs from the very instability and unformedness of his own self, impelled by its nature to reach out into the environment, yet marked for healthy growth only in the measure that it finds there fit nurture and constant reassurance. This need is met during the earliest

*Education: Its Data and First Principles: Edward Arnold & Co. 3rd Ed., 1945.

>P>†Cf. the Corinthians on the Athenians: "They spend their bodies as mere external tools in the City's service, and count their minds most truly their own when employed on her behalf." Thucydides I. 70.

years by the conditions of a good home, and in due time within the life of a good primary school. At the secondary stage it assumes a fresh urgency, for with the coming of adolescence the self again falls into a confused and distracted state from which it will emerge only by a gradual reintegration at a higher psychological level. Clearly, then, the security required is less physical than spiritual: it is the encompassing presence of mature and balanced personalities, disinterestedly regardful of the child as a person and manifesting toward him a consistent and active goodwill. In the genial warmth of such an atmosphere the growing life will respond with trust and self-expression not disturbed by fears or spoiled by concealment. The aspirations of adolescence are nourished, its instinct to imitate finds a worthy pattern, and its whole impulsive life is controlled without violence and directed along healthy and creative channels. Thus environed, the developing personality has fair prospects of attaining an adult selfhood that is at once finely social and fully individual.

53. Unfortunately, there lie outside the controlled *milieu* we have been describing the uncontrollable elements of a chaotic environment, and since the unregulated experience of adolescence is all too often conflicting and ignoble, there is a double obligation on society to make the regulated experience sane, consistent and satisfying. What makes it so necessary to stress this new responsibility falling on the school is the profound change that has come over our national life in the last half century. Urbanisation, limitation of families and the passing away of a closely unified family life, the immense scale and high specialisation of industry and the ceaseless movement of population have transformed the relatively simple and stable community life of earlier times into a vast, incoherent complex in which the adolescent is lost. To speak of "detrified youth" in Scotland, as many are doing, is no mere rhetorical exaggeration: and, unless the secondary school with an extended vision of its functions, can in some measure replace what has been lost, the prospects are indeed dark for the many who in this generation are rootless and bewildered.

54. Graciousness is not so much a fresh quality as the fine bloom on that high disinterested care for young life of which we have already spoken. It goes with the persuasive temper and the gentle judgment; generous in encouragement, it is temperate in reproof, and it has power to evoke a responsive friendliness in which mistrust and hampering reserve melt away. Our national life would gain much by a wider diffusion of such a spirit, and we make no apology for giving it a high place, both in the armoury of the teacher and among the ideals to be set before the young.

55. It would be mistaken to think of ordered freedom as a compromise between conflicting requirements of the child for liberty and of society for stability: it is rather a synthesis of values equally vital to both. Order is one constituent of that secure setting within which alone the nature of the adolescent can express itself in those spontaneous and purposeful activities which we call free; and, on the other hand, no democratic society can rest content with an orderliness of individual behaviour which is not the result of countless decisions responsibly made under conditions of real choice.

56. The community life of school supplies the adolescent with the raw material which he works up into social and moral experience. In it he

confronts a pre-existing society, a web of relationships into which his own claims and obligations must be woven. He discovers those limitations on freedom that come from the mere existence in one's world of other selves, and finds that, whereas certain behaviour-patterns result in frustration and clash of wills,

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others yield the deep satisfaction of activities in which paradoxically he feels most completely himself when co-operating most fully with his fellows.

57. Provided his small world is not oppressive in its government or arbitrary in its purposes, what began as restraint from outside gradually commends itself to his experience as inherently reasonable, and is more and more accepted as his own; so that in the end conformity takes on the quality of a rational and freely-willed obedience to law. What at the outset was external rule is now the law set in his inward parts, and in him the social and the individual are on the way to being harmonised.

58. This is, of course, extreme idealisation. The process will never be complete within the adolescent years: it will always be slowed by the deficiencies of even the best school: it will often be marred by tile anarchic influences of the world outside. Moreover, in every self there is something and in a few selves much that can never be sublimated even within the most favourable environment, but must in the end be suppressed and die, that better things may live. But, with fullest awareness of every limiting or adverse factor, the secondary school must still accept as its supreme function the provision of the setting, the material and the occasion for this progress of the young towards social selfhood.

59. But the conception of ordered freedom is not exhausted by the reference to education in society: it equally involves the idea of education *by* and *for* society. We believe individual development to be wholly consistent with the right of society to transmit its inheritance and secure its own continuity; indeed, the former is impossible without the latter, since at every level from genius downward individuality emerges only from a common life and must express itself in terms of accepted values, even where it seems most to challenge or transcend them.

60. As we have said, social agencies must provide not only the setting but also the material for the growth of selves. There call be no education in a vacuum, and in the nurture of its young a society must perforce employ the values embodied in its history and culture. Here is no conspiracy against freedom but a sheer necessity of our human situation: indeed, we might find in these words, which have an even more august reference, the inevitable declaration of any *patria* to its children - "You must be strong with my strength and blessed with my blessedness, for I have no other to give you."*

61. What differentiates a democratic from a totalitarian education is the area of freedom left to the individual and the attitude of authority towards it. An education for freedom will seek only such measure of uniformity as is indispensable to social cohesion: that secured, it will

foster diversity and initiative, and will see in variations from the national type a source of strength not of weakness. It will recognise "that there is no limit to the number of life-patterns into which good or blameless action may be woven;"† and its high tolerance will be in the spirit of the ancient Athenian boast - "And not only in politics are we open-minded: without a scrap of jealousy we tolerate peculiarities of all sorts in each others daily lives. We have no objection to our neighbour's following the bent of his humour, nor do we put on black looks, harmless maybe, but annoying."‡

*C. S. Lewis quotes the words from George MacDonald in "The Problem of Pain" page 42.

†Percy Nunn op. cit. 14.

‡Thucydides II, 37.

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3. The School an Agent of Social Change

62. We have spoken of the school as a preserver of values, but from the side of the state it has another function: to be an agent of social change. A natural horror of totalitarian excess must not blind us to the reasonableness of this. We are not forced to choose between the sheer conditioning of the young and a spiritual and ideological neutrality so unreal that no vital community could observe it. A liberal state will naturally desire to produce a dynamic rather than a static type, but it will quite properly seek to ensure through education that the creative energies of a new generation are used to direct the forces of change along lines which are socially desirable and in general accord with the nation's traditions and ethos. This may involve some determination of the content and methods of secondary education, but it is difficult to see in such action by the state an attack on liberty, unless we are to equate freedom with a sterile and escapist individualism that has no kinship with any Christian or democratic ideal.

63. This proper concern of the state with the direction of social change will be twofold; first, to see that the schools inculcate those virtues without which democracy cannot survive. and secondly, to be satisfied, especially at a time of great economic stress like the present, that boys and girls are taught the basic skills and cultivate the special aptitudes which will ensure the maximum productivity of the country.

64. The democratic virtues are tolerance, respect for reason and persuasion, hatred of cruelty and oppression, the willingness to surrender sectional privileges in the general interest and to sacrifice personal leisure in the common service, and, not least, an international temper of sympathy and understanding. It is only necessary to list such qualities to dispel any fear that their cultivation might impair the free and balanced development of the individual.

4. Technical Training in the Secondary School

65. The basic skills will more properly be dealt with in the next chapter, but it will not be out of place to make a general reference here to pre-vocational and technical training in the secondary school. Does the demand for such training raise a conflict of interests

between society and the child? We are satisfied that it does not. Admittedly the demand is prompted by the concern of the country as a whole for its economic survival and the improvement of its material standards. But all our evidence goes to show that the strongest justification for giving such pre-vocational and practical training a place in the secondary school is directly educational, i.e., it arises from the needs of the adolescent himself. Indeed, for most children some initiation into those crafts and activities that are basic for the human race is a condition of any real educational development during adolescence; and the remarkable success of wartime instruction in the Air Training Corps, together with the unusual keenness shown in trade schools and pre-apprenticeship classes, makes it impossible to doubt that in a boy's vocational interest and the sense of purpose it gives to his studies the secondary teacher finds a powerful ally.

5. Conclusions

66. It may be felt that the whole argument of this chapter is somewhat formal and abstract. In a sense this is true, and it follows inevitably from our

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first principles. The totalitarian may well set out his programme in detail, for he intends to carry it out with ruthless disregard of the interests and wishes of the human material on which he works. But a democratic faith cannot thus see the end from the beginning. It knows that God fulfils himself in many ways, and it must be content to cast its educational bread upon the waters. And so, outside the few fundamental virtues of which we have spoken, it looks for endless variation in the behaviour-patterns of youth; and it welcomes them, for no man can tell in advance precisely which combinations of mental and moral qualities are going to prove most valuable in our swiftly changing world.

67. But our argument is not abstract in the sense that no specific conclusions flow from it. All that we have said about the secondary school as a community in which personalities are being fashioned has a most practical reference. It bears upon the size of classes, the use of the specialist teacher, and the content and methods of secondary education, but it also raises vital questions about all the relationships within the school and about the relationship of the school itself to outside control. Democrats are best produced in schools that are democratic in spirit and practice/and no school can be that if its life is too straitly ordered by external authorities, or its headmaster is autocratic towards colleagues and pupils, or the staff is authoritarian in its dealings with boys and girls, and leaves them no real part in regulating the life of their school community.

68. We should be disappointed if these homely reminders were felt to be a too lowly close to a high argument. The application of principles is never to heroic or spectacular things at the world's end, but always to the prosaic duties and relationships of every day.

CHAPTER V

THE CONTENT OF SECONDARY EDUCATION

69. In this chapter we consider in a general way the content of secondary education, leaving to the chapter on the curriculum itself more detailed comment on individual subjects.

70. As the values and ideals of any society fix its educational aims, so do the latter determine the content of the curriculum. The question of what we shall teach is never ultimate and abstract but has always a concrete reference. For us in Scotland it takes the specific form - what does our post-war democracy, aiming at the harmonious and socially useful development of young life within its free yet ordered bounds, desire the secondary schools to teach?

71. It might seem that the most practical starting point was the existing curriculum, but there are good reasons for not beginning there. The curriculum is a historic growth, astonishingly slow for many centuries during which little was added to those classical studies that were the necessary training of the clerk and the gentleman in the middle ages. From the middle of the nineteenth century the process of accretion has been increasingly rapid. The insistent demands of modern life proved too strong for the forces of conservatism; and place had to be found successively for that array of subjects both

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humanistic and scientific which has now invaded the school day. But it is more accurate to say that place had to be found than to suggest that the curriculum was reformed. In the radical sense that a fresh start was made and the content of the curriculum determined by present relevance rather than by past prestige, it would be fair to claim that only in our own day has reform been seriously attempted at all.

72. It is not surprising, therefore, that the curriculum is felt by all to be over-crowded, and yet every specialist teacher is dissatisfied with the time available for his subject. A curriculum becomes congested precisely as a book case does with the passing of the years. New interests emerge, fresh claims are admitted, but old titles are seldom revised and still more rarely withdrawn. Accordingly, when we survey the jostling elements in the curriculum, all we can be sure of is that there is nothing there which was not originally relevant and valuable. We dare not assume that there is nothing which has outlived its usefulness, or that the room occupied by subjects corresponds to their present importance, or that everything within has better title to inclusion than anything that still knocks without.

73. There are two reasons why we must stand aside from any battle of the subjects: first, that we may escape the temptation simply to rationalise our own preferences and prejudices; and second, because the very conception of "subjects" in the conventional sense may itself mislead and should not, in any case, be accepted at the outset as fundamental.

74. All educational thinking must continually move between the two poles of the child in his nature and growth, and of society, as it is patterned and as we desire to modify that pattern. In form, therefore, the questions to be put are simple ones. What does the child of

adolescent age require of the school for his balanced development? And what are the distinctive skills and fields of experience into which a society like ours would wish its young to be guided?

75. When the problem is thus removed from any tangle of vested interests, it is surprising how large is the measure of agreement among all who have in recent years given disinterested consideration to the content of the secondary curriculum. It conduces to agreement that two principles are now so generally accepted: that we must think in terms not of some children but of all; and that "education should take cognisance of the whole child; of his physical, affective and aesthetic sides as well as his memory and intellect."*

1. Bodily Growth and Well-Being

76. We shall not go wrong if we begin where in a sense life itself begins - at the physical level - and claim that the secondary school must show the most enlightened care for the bodily growth and well-being of the young. The more obvious this is felt to be, the greater the reproach that it should be still so far from realisation.

77. Such care involves much more than physical exercises and games, though it does postulate those on a scale transcending . present practice. It implies that education committees, headmasters and teachers shall in their several ways be much more actively concerned about such things as heating and ventilation, the sanitation and general cleanliness of schools, the adequacy of the lighting, both natural and artificial, and the size, condition and placing of desks and blackboards. Education has its prose as well as its poetry.

*Report on the Training of Teachers (Cmd. 6723). paragraph 9.

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78. It suggests too that, instead of attaching a fictitious value to perfect attendance, authorities should combat the spread of common infections by laying down conditions in which, for the protection of their fellows, children will for a limited period be excluded from the school.

79. And not least, care for well-being must include that simple but effective teaching on physiology and hygiene, on nutrition and regimen, which bring home to boys and girls the extent to which personal happiness and use to society' alike depend on bodily fitness and favouring environment. In this connection we commend the good work of the Scottish Council for Health Education.

80. All this requires, no doubt, additional gymnasia and playing fields, but even more perhaps, it needs a change of heart in many parents and teachers and a willingness to put first things first.

2. Handicrafts

81. Secondly, the schools must direct and satisfy the strong desire of children to make things, to engage hand, eye and brain in the shaping of materials to useful and pleasing ends. This urge to fashion and contrive and adapt is a powerful educational motive and almost universal among normal children. Wisely guided it gives constructive

outlet to superabundant energy, satisfies the child's instinct to be at grips with the real, and lends itself to cooperative effort in many forms. For some it leads insensibly to the fully vocational interests of later adolescence; for others, to the sane and happy employment of leisure hours.

82. But the strongest title of the crafts to a place in the secondary curriculum is their direct educational value. Few will ever walk the way of abstraction; for most the quickening and the due development of mind come only through purposeful activity directed to concrete ends. And in a society so largely divorced as ours from the craft-experiences of the race, there is need for all young people to have a part in the difficulties and satisfactions of those who work with stubborn, three-dimensional things, and to learn a new respect for their labours.

83. We say advisedly for all young people, for we are not concerned here with something profitable only to certain types of secondary pupil or at certain levels of intelligence. We recognise that the nature and extent of handicraft will vary for different groups and at different stages, but we recommend that such practical work should have a place in the curriculum of every boy throughout at least the first three years of the secondary course: and this recommendation implies a corresponding place in the curricula of all girls for those household arts which are for them the nearest counterpart to the basic craft-skills for boys.

84. In passing, we draw attention to two common fallacies: first, that pupils of pronounced bookish ability have least to gain from such practical training; and second, that at the lower end of the intelligence scale all educational problems can be solved by the mere extension or multiplication of manual work.* Handicraft is some of education for all; it is never all of education for some.

See Ch. III of Duncan's "The Education of the Ordinary Child" - Thomas Nelson & Sons, 1942.

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3. The Arts

85. A quarter of a century ago, one of the most human of English educational writers was lamenting that "Hearts are still out of fashion in school."* Today the most revolutionary of Scottish educational pioneers entitles his latest book "Hearts not Heads in the Schools". † It is indeed strange how little account most of our secondary schools have taken of the whole emotional and aesthetic side of life, how limited and insecure a place they have given to the arts. This is not primarily a question of time-allowance but of attitude: the greatest need is not more periods to music and dancing and the visual arts but more esteem for them, more recognition of their high and irreplaceable value in education. And the evidence is all about us of the impoverishment both the individual and the community have suffered from the failure to educate the affective and intuitive sides of human nature. Denied the healthy and disciplined expression that comes from the cultivation of the arts, the emotional life of the individual is all too often arrested and given over to the dream-

satisfactions of Hollywood. On the side of feeling the majority of men and women are but half-grown.

86. That the deep sense of corporate unity and its need to find utterance are not dead but merely starved is evident from the hideous success of the fascist states in exploiting mass emotion. Nemesis awaits a society if, over-engrossed with the analytical and practical, it forgets those powerful non-rational forces which earlier civilisations have known how to canalise and direct to socially desirable ends.

87. The humanising and joy-giving power of music and the dance; the ability of poetry and great utterance to delight and satisfy, if they are directly received and not spoiled by over-analysis; the unique value of play-producing and acting in its blending of individual and collective effort, of constructive and artistic expression; the enrichment of observation, taste and fancy that result from the attempt to embody them in form and colour - these are things that need not to be proved but simply to be re-affirmed in an age that has made life poor by making it one-sided.

88. Not all the arts will appeal equally to every girl and boy, but together they yield a great part of unspoiled human enjoyment, and in their pursuit man gains a quickened sensibility, a deepened apprehension of life as a whole, and all operative wisdom and power to deal with life which is at least as important as the faculty of rationed analysis.

89. While, therefore, we do not wish to see the frontiers of the different arts too strictly drawn within the life of the school, we do recommend that a more generous and assured place be given to the development of the affective and aesthetic side as a whole in the secondary education of all pupils.

4. Religious Instruction

90. Starting with the Report on Training for Citizenship[‡] we have consistently accepted it as one of the major functions of the school to pass on the moral and social inheritance and to direct the sentiments and habits of young people towards the good life. We are far from thinking this will be done solely

*George Sampson in "English for the 'English'".

†A. S. Neil.

‡Cmd. 6495.

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or even mainly by precept and intellectual appeal; but, since the life of the west has its roots in the Christian religion, we consider it essential that the secondary schools should continue to give that instruction on the Bible which use and wont have long since established in Scotland. Our concern here is not to import something new into the curriculum but to ensure that what is being done after a fashion should be better done; with a fuller regard for the qualifications the work requires and a livelier sense of the opportunities it offers.

5. Intellectual Studies

91. We pass now to those intellectual studies which for average opinion are the curriculum, and, as soon as we apply our two simple criteria - importance for the stability and progress of a free society, and relevance to the needs and interests of normal adolescence, it is clear that there are four claims to inclusion which dwarf all others: (1) The study of the mother tongue; (2) Number and the more important facts of spatial relationship; (3) General science; and (4) Social studies.

(1) SPOKEN AND WRITTEN ENGLISH

92. By the study of the mother tongue we mean training in the understanding and use of spoken and written English. The unique significance of this study will never emerge if it is thought of simply as one subject among others. Rather is it the instrument and pre-condition of all intellectual progress, entering into education at every point and inescapably the concern of every teacher. It matters supremely to the individual, for to be less than fully articulate is to suffer some arrest of development and some diminution of powers. It matters no less to the community, since the continued health of democracy depends on a widely diffused ability to use and understand words - and to be proof against their misuse by others. In what sense this training in the mother tongue involves the study of English Literature will be more properly considered in the chapter on The Curriculum. The experience of two generations has revealed what an immense undertaking it is to produce a fully literate and articulate population. But educationally all else hangs on it, and to this task the schools must turn with redoubled determination and with a wholly new emphasis on the spoken word.

(2) NUMBER AND SPATIAL RELATIONSHIP

93. The history of number and measurement is in a sense the history of civilisation itself, and for cultural and practical reasons alike some skill in calculation and some understanding of number and spatial relationships are an indispensable part of the secondary education of every boy and girl. But we have avoided calling this irreducible minimum "Mathematics", for that familiar term implies a content and certain mental processes that are beyond the powers of many. Moreover, the suitability of much of our traditional Mathematics for any pupils up to School Certificate stage* is being increasingly challenged.

(3) GENERAL SCIENCE

94. It is difficult to set down briefly all that is implied in the commonplace that ours is a scientific age. At the least, it means that the material environment of our every-day life is conditioned by the applications of science; that

*See Chapter VIII.

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the immense scope and complexity of industry are its fruits; that the economic relations between peoples are being profoundly modified

by scientific advance; that the triumphs of science are the most distinctive achievement of modern man; and that our criteria and habits of mind must become akin to those of the scientific worker. It follows that the study of science must enter into the secondary schooling of every boy and girl, and we recommend that no pupil be allowed to curtail the time normally allocated to science before the completion of the IIIrd Year, or to discontinue its study before the end of the IVth.

95. We have adopted the term "General Science", because we believe that up to School Certificate stage, the proper concern of the schools is not with that systematic study of particular sciences appropriate to the more mature interests of VIth Form pupils, but rather with those general concepts, characteristic methods and distinctive achievements common to all the sciences alike. The treatment should be broad and varied, partly descriptive and partly experimental, taking due account of the history of science, and keeping close all the time to the centres of interest of the adolescent. Such study would yield a limited amount of more precise "tool" knowledge and a considerable area of "background" knowledge. The importance for modern life of such background knowledge is not to be measured by the very modest place given it by the external examiner. We recommend that up to School Certificate stage schools should not offer specific courses in physics, chemistry or biology, alongside General Science, but only the latter, varying, of course, in scope and depth of treatment according to the quality of the pupils.

(4) SOCIAL STUDIES

96. In speaking of "Social Studies" instead of history, civics, and geography, we are not falling into the sin of pretentiousness. What we seek to convey is that during the earlier secondary years at least the study of man in his world, like the study of science, is a unity, which should not be broken by any sharp division into 'subjects'; and that consequently the traditional approach to geography and still more to history was often ill-judged and ineffective. The theme must be one - human life in communities, whether the vision ranges over space or over time - and neither logical nor chronological sequence but the natural movement of adolescent interest and the limitations of youthful understanding must determine the treatment.

97. We recognise that the more rigorous, causal study of social phenomena is scarcely possible within the years of compulsory schooling, but the attempt must be made to awaken in all young people a sense of the mingled grandeur and tragedy of man's past and a lively interest in the continuing human adventure. Only so can we hope that the maturer studies of the VIth Form and the junior colleges, and still more the reading and reflection of adult years, will yield the practical wisdom and sense of social responsibility in default of which the future of free communities remains so precarious.

6. Mathematics and Foreign Languages

98. Recent discussion has tended to divide the content of secondary education into core subjects and options or electives or peripheral subjects, the former representing the minimum to be taken by all pupils, the latter those further branches of study that will enter into the courses of different groups. On this division, the core would

comprise those subjects or, as we prefer to say, those fields of practical, aesthetic and intellectual activity described in this

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chapter, while the periphery would consist of foreign languages ancient and modern, the more exacting parts of Mathematics, and certain vocational studies.

99. We do not propose to argue the case for putting Mathematics in its more formal aspects and foreign languages outside the core. If there be any who still hold that, without these disciplines, there is no secondary education, then they must face the distressing fact that nature has denied secondary education to a large part of normal humanity; for the evidence is conclusive that very many children, perhaps even a majority, are incapable of progressing any distance in these subjects or of extracting any substantial benefit from their study.

100. The conception of core and periphery is valid and useful enough, provided it is borne in mind that peripheral subjects are simply those that can be or will be taken by some only: the danger lies in the further and unwarranted assumption that such subjects are therefore of only minor importance. Apart from the admitted fact that, relative to the core, electives gain in importance as the course goes on, it must be recognised that there will always be many (and those among the most richly endowed) who almost from the beginning of their secondary schooling find the keenest satisfaction and the most unfailing mental stimulus in the austere pursuit of mathematical and linguistic studies. It is no part of our democratic obligation to belittle the worth of certain high and exacting activities of mind merely because they are not for the many.

7. Transfer of Training

101. Any proposal to assign a smaller place, even if not a lessened importance, to Mathematics and languages may well be met by the contention that, though these are indeed laborious studies and yield but limited intellectual content to boys and girls of moderate intelligence, the time spent on them is justified owing to their unique value as mental disciplines.

102. We find this argument wholly unconvincing. The traditional doctrine of 'transfer of training' is fully discussed in the Spens Report* and in a very valuable Appendix to it by Professor H. R. Hamley. We accept the finding of that Report and of almost all expert educational opinion that in its familiar form the doctrine remains quite unproved and that any plausibility it had largely disappeared with the discrediting of the faulty psychology on which it rested. There is no evidence that one learns to write English best by reading and writing Latin, or that logical qualities characteristic of mathematical thinking will necessarily transfer themselves and become operative in other spheres of life. It is regrettable that the real case for Mathematics and Latin should be obscured by irrelevant references to the success of Oxford Classics and Cambridge Mathematicians in industry and the world of affairs. The immense prestige of these ancient disciplines has continued to draw to them a very large proportion of the nation's best brains, and it is fairly

obvious that the admitted success of these men, the grasp, initiative and versatility they have shown, may well be attributable not to any esoteric virtues inhering in classical and mathematical training alone but to their unusually fine natural endowment.

*Report of the Consultative Committee on Secondary Education with Special Reference to Grammar Schools and Technical High Schools. H.M. Stationery Office. 1938. Price 3s 6d.

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103. We do not suggest that in no circumstances can the effects of training be transferred. Human activity divides into certain great fields, and skills or habits of mind acquired in one part of a field may be transferred to another part of the same field, especially if the person concerned is *conscious* of the common usable elements in the two activities and there is the reinforcement of a strong emotional interest. Thus, one great field of mental activity is language-learning, and, given the favouring conditions we have mentioned, transfer may well take place and "the study of Latin will aid the study of French, because many French words are derived from Latin roots, and because many of the methods used in learning Latin - e.g. the use of a dictionary will also be required in learning French."* It is pertinent to point out that a prior learning of French or German might similarly expedite the learning of Latin. If transfer of training operates, it is not on monopoly terms. Cyril Burt summed up the current view in these words - "Transfer of training appears, to put it cautiously, to be much less certain and of much narrower spread than once was believed."*

104. For the framer of curricula the conclusion seems clear: subjects that cannot justify their place by the intrinsic and securable worth of their content, by the delight or wisdom or indispensable knowledge they bring to the learner, are not in future likely to win en tree on the strength of a putative training value.

CHAPTER VI

METHODS IN THE SECONDARY SCHOOL

1. Why Present Methods Often Fail

105. It is significant how readily any consideration of secondary school methods tends to occupy itself with the question of teaching techniques. There is much acute and enlightened discussion of means whereby the horse may be brought to the water or the water to the horse, but of the ultimate problem that confronts ostler and educator alike hardly enough account has been taken. For it is neither contradiction nor quibble to assert that our secondary schools are full of good teaching and poor learning. The teaching of the subject specialists is good in the quite real sense that it is marked by accurate and ample scholarship, by clarity and balance, and very generally by vigour and liveliness of presentation. Indeed, it is difficult to see how, within its own kind, it could be much better. Yet a great part of this teaching fails of its purpose, and it fails very largely because it is wedded to methods designed originally for a bookish minority and still not ill-suited to them, but lacking in appeal to the many others who now fill the secondary classrooms.

106. Many pupils are bored and unresponsive, seeing little meaning in their secondary school work and passing from it without regret. The trouble goes deeper than mere unsuitability of subjects: boys can prove as allergic to school Mathematics as to latin or French. Nor does it help much to assume an original and all-pervasive laziness in young people, for the paradox remains that idleness in school often co-exists with the putting forth of intense and sustained mental energy in some freely-chosen activity. This is well illustrated

*Prof. Cyril Burt, quoted in Spens Report, p. 133. (See footnote to paragraph 102.)

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by the following incident. During an interval at a Scottish senior secondary school the Classical Master and the Mathematical Master in the course of a stroll passed through the school hall where several of the senior boys with jackets off were strenuously engaged fitting up an elaborate electrical installation for a school play. Said the Classical Master bitterly to his colleague: "Just look at that. Anything but work."

107. It is clear that the problem of method is pre-eminently that of discovering or creating the conditions of effective learning, and secondary education in Scotland has to face the question whether these necessary conditions can be secured for ordinary children within the limits of class-instruction and a rigid timetable. Nothing but long familiarity could blind us to the strangeness of these two institutions and the degree to which they flout our knowledge of childhood and adolescence.

108. Children are essentially active, and we condemn them in the classroom to a passive role. Though they are highly individual, the same subject-matter is presented to whole classes at the same time, and uniform tasks are habitually prescribed to diverse capacities and attainments. Their activity springs from spontaneous interest; yet we keep the initiative almost wholly in the teacher's hands. Children's preoccupation is with "concrete wholes", but we abstract and schematise and offer subject-content in a logical sequence. Their attention-spans may vary greatly, and the ebb and flow of interest and activity follow a different rhythm in every child: nevertheless the period bell has but one summons for all, and thirty minds must act in unison.

109. Again, children are by nature co-operative, tending to group and re-group in the pursuit of successive ends. But within the illusory society of the classroom, there is little scope, as a rule, for co-operative effort. Most of the time the teacher is dealing with the children one by one by way of question and answer, and if any well-intentioned pupil intervenes to help or prompt his neighbour, it is soon brought home to youthful minds that the team virtues must be kept for the playing field and not imported into the serious business of learning or, by implication, life.

2. Experiment in Educational Methods

110. The movement of educational thought in the past forty years has brought increasing awareness of the many grave objections to class-teaching and the fixed timetable. From the pioneer work of

Montessori, Decroly and Caldwell Cook, the influence of the Dalton Plan and the Project Method in America, the teaching of Dewey and Kilpatrick, and the objective witness of mental tests to the surprising intelligence range and diversity of gifts among normal children - from all these has emerged a philosophy of education which challenges almost every assumption on which class-instruction is founded. If these new educational ideas have not yet found expression in anyone fully accepted technique of teaching and learning, they have profoundly shaken confidence in the old ways among all who are not simply routine-bound, and have created a ferment in pedagogical thought and practice everywhere. But nowhere perhaps less than in Scotland. It is a little saddening to lay down such a volume as "A Modern Schools Handbook"* and to reflect that we have no Scottish counterpart to this English record of distinctive work and experiment in a score of schools. It is worth conjecturing in passing some of the reasons for the time-lag and the absence of major experiment in Scotland.

*Published by Gollancz - 1934.

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(1) Our secondary schools are large, and, while it is not impossible to experiment in a big school, it is certainly much more difficult, since the administrative function of the headmaster so often encroaches heavily on the educational. All the schools described in "A Modern Schools Handbook" are by Scottish standards small, many of them tiny.

(2) Almost all the pioneer schools of England are private schools, their heads free to choose staff who are willing partners in experiment, and pupils whose parents are hospitable to the newer educational ideas. In Scotland so little lies outside the unified national system that there seems to be no room for venture and innovation.

(3) Scottish secondary education has been at once peculiarly academic in type and utilitarian in intention. We have no large class of monied people in a position to indulge a preference for a vital and enlightened schooling of their children as against one that ensures examination success and a passport to a profession.

111. Against our deficiencies in the field of experiment, it is only fair to set to Scotland's credit that it has done much more than England to provide post-primary schooling for the lowest third on the intelligence scale.

112. What we have to say about experiment in educational methods may conveniently take the form of brief accounts of and comments on (1) the Dalton Plan, and (2) the Activity Curriculum or the Project Method.

(1) THE DALTON PLAN

113. The Dalton Plan is in essence quite un-revolutionary: it does not challenge the traditional division of knowledge into subjects, but

simply provides a way of dealing with the conventional curriculum that is free from the rigidities of the timetable and the defects of unbroken class-teaching. The Plan involves the division of the syllabus in each subject into major units or assignments representing usually a month's work, and armed with these assignments and the necessary guidance how to proceed, the pupils are left to carry out the work at their own speed and in their own time. The class-rooms are transformed into subject 'laboratories' where pupils work singly or in groups for such periods as they wish, a specialist teacher being present to help where needed. The pupils are assembled as a class perhaps once a week for each subject, to discuss progress and allow of such instruction as may more profitably be given to a group. Permanently unbalanced work and continued neglect of certain studies are prevented by the stipulation that a pupil may not go on to the next assignment in any subject until he or she has completed the current assignment in all the rest. The month's work is a "contract" which the pupil freely undertakes to fulfil.

114. The merits claimed for the Plan are that, within a general curricular content determined by the mature experience of the teacher, it leaves the child much freedom to order his own day, fosters initiative, neither interrupts nor forcibly prolongs the interest span, and makes possible a learning activity that is at once more individual and more truly social or co-operative than the conventional forms of class-teaching.

115. With various modifications, the Dalton Plan has been widely adopted on both sides of the Atlantic, but criticism of it has not been lacking. It is said to work better in smallish schools than in large ones, and with bright or good average pupils rather than with dullards, who are at a loss how to use their time. Unless great care is taken, the education may be weak in oral training. Similarly, the corporate side may remain undeveloped, and the

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isolation of the pupils become too complete. One expert witness, describing a visit to a Dalton School in England, remarked that "he had never met a lonelier lot of children in his life." Again it is objected that the Plan hands the children over to a succession of specialists. It must be pointed out, however, that the relation between a 'subject adviser' and the individual child under the Dalton system is very different from that of the usual specialist teacher and the members of a secondary class of 30 or 40 pupils. Nor is it impossible on the Dalton Plan that the same person should 'advise' a group in more than one subject.

(2) ACTIVITY CURRICULUM OR PROJECT METHOD

116. Unlike the Dalton Plan, the Activity Curriculum or Project Method is a radical departure from the whole conception of class-instruction and teaching of subjects. It shifts the centre of interest from teacher to child. Its advocates hold that, while those systematizings of knowledge-content which we call 'subjects' may be congenial to the adult mind at certain levels, they have but slight meaning for childhood, and that the attempt to impart them in the customary way results in a form of learning which is largely verbal

and which, since it neither evokes interest nor modifies experience, is impermanent and of little ultimate value. True learning, they argue, is very different both in its psychological basis and in its aims. It starts from the child's sense of purpose, his urge to do something either by himself or as one of a group. Such purpose begets spontaneous interest which in its turn engenders that sustained attention for which the learning process becomes relatively swift and effortless. In such learning, the acquiring of factual knowledge is incidental to the development of reasoning techniques and to that continual working of the mind on the stuff of experience, in order to gain new power to direct the subsequent course of experience.

117. In terms of the school, this means a curriculum made up of "activities" whereby an activity is meant "any large learning situation brought about by the strong purpose of the child or group of children to achieve a worthy end desirable to themselves, which, like those situations in life through which we are most truly educated, draws upon a large number of different kinds of experience and many fields of knowledge."* It will be seen that this is almost identical with Kilpatrick's extended definition of a project as "a wholehearted purposeful activity proceeding in a social environment."†

118. The part of the teacher in such a curriculum is to discover and utilise the children's "centres of interest", making them the starting points of a planned series of projects or activities that lead to a progressive organisation and enrichment of experience. Such activities may be of the most varied kinds: in the experiment carried out by Dr. Wright some years ago they included the growing of mushrooms, the making of wireless sets, the running of a canteen. the survey of a local industry, and the presentation of a pageant.

119. As knowledge is needed for the furtherance of any project, it is acquired, and easily acquired, because of a compelling sense of its relevance and purpose. To the doubt whether knowledge got in this incidental and seemingly haphazard way would be truly at all, Kilpatrick retorts with the claim "I think that what is learned in a life situation has cues and feelers joined to it that promise best for its future use. I think that what is learned

*Memorandum by Dr. Thomas Wright, Coatbridge Secondary School.

†W. H. Kilpatrick - "The Project Method" - Teachers' College Record, September, 1918.

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from a systematic course in a book is in danger of lacking those life connections and so is in danger of lying idle in the mind when the occasion arises to use it.*

120. It must not be thought that this revolutionary doctrine has gone unchallenged. Twenty years' experience has left American education very conscious of the immense difficulties inherent in an uncompromising application of the Activity Curriculum, and inclined to see in the Project a valuable element in class-room techniques rather than a solution of all its problems. Typical of informed but cautious opinion in this country is the oft-quoted verdict of the Spens Report, which, after admitting the seductiveness of the doctrine and

the great value of the Project in the teaching of young children, goes on:

But our general doctrine forbids us to go much farther than this: for its essence is that the school 'subjects' stand for traditions of practical, aesthetic, and intellectual activity, each having its own distinctive individuality, and we hold that the profit a pupil derives from them does not come from casual or episodic contacts, but by his being, so to speak, put to school to them, and so getting to make their outstanding characters part of the equipment and habit of his mind. If this is to happen, the subjects must be pursued as such - though we have urged that they should be pursued actively and not merely be assimilated by memory and understanding.†

121. The criticism has substance, and the high claim for systematic training is indeed vindicated in the finest products of the system, the relatively few in whom native aptitude and long study unite to produce the good fruits of a rounded education, be it mathematical or scientific, linguistic or historical. But as one passes in thought from the few to the many, to the thousands of ordinary children who in the class-rooms of our land have been "put to school" to the subjects, a very different picture takes shape-of uninterested, restless boys and girls, drifting or muddling through the years of secondary schooling and, in many cases, carrying away at the last little more than gobbets of ill-digested knowledge and a distaste for what has yielded so little.

122. This large element of wishful thinking implicit in the claim of the Spens Report has been trenchantly criticised by the more radical Council for Curriculum Reform who protest against the attempt to justify the highly formal and systematic nature of quite short secondary courses "by smuggling in values to be obtained only by much more prolonged study."‡ They say with truth that, whatever be the values of the "subject" carried to its full term in university study, they cannot "be achieved for the child of 16 by simply snipping off a certain length of the 'subject' like a piece of tape." This is a point that needs to be stressed continually. Every course must have its own unity and completeness, and a proper realism requires that content and methods alike be so regulated as to reach their objective within the time available.

123. And that leads to a very important consideration. Just as great cultural traditions show three distinct phases, so, as has been pointed out by Whitehead,§ Percy Nunn and others,¶ there are three corresponding stages in the learning process itself - the phase of romance, that of precision, and the

*W. H. Kilpatrick - "Foundations of Method". p. 357: The Macmillan Coy. 1926.

†Spens Report, p. 159. (See footnote to para. 102.)

‡"The Content of Education". p. 45: University of London Press, 1945.

§A. N. Whitehead - "The Rhythm of Education". 1922.

¶Sir Percy Nunn - "Education: its Data and First Principles", pp. 270-1.

¶¶Report on Science Teaching in Secondary Schools - British Association, 1917.

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final phase of application. Of these three, the first and the last have a powerful appeal for young people, and the teacher finds strong allies in the child's delighted response to the wonders of nature or human history and in his passionate interest 'in the application of knowledge and ideas to the world around him. On the other hand, the middle phase, that of precision or system, is at best neutral territory, in which interest may easily languish and youthful zeal lack nourishment. Yet, despite some improvement in the past twenty years, it is still a reproach levelled at much secondary school practice that "the phase of romance is hurried through quickly, the phase of precision is dragged out to cover almost the whole course, and the phase of application, which gives point to the whole business, is not reached at all in many cases."* If anyone doubts the truth of this, let him reflect, for instance, on the content and methods of mathematical teaching in most senior secondary schools.

3. Recommendations

124. The evidence of others and our own experience alike make us aware of the great difficulties inherent in this problem of secondary school methods, and we cannot give an undivided allegiance to either the traditional or the revolutionary camp.

125. It is not hard to justify class-instruction as one element within a body of enlightened teaching technique. There are unquestionably many occasions when information or explanation may profitably be conveyed to a whole group at once, with much economy of time and energy. Moreover, the class-lesson, like the lecture to an adult audience, has in skilled hands an inspirational value that is irreplaceable. But it is hard to find any sufficient reason why class-instruction should still almost monopolise the field of method, except the negative reason that no alternative of wide applicability under existing conditions seems to have clearly emerged.

126. We attach much weight to that reason, negative though it is, for in this matter we are deeply concerned to keep what Horace Walpole called 'a dear friendship for common sense', and not to infuriate the practising teacher with suggestions that are manifestly unworkable. Dogmatism is out of place here. The strongest advocate in Scotland of the Activity Curriculum, Dr. Wright, combines an unshaken belief in its intrinsic superiority to conventional methods with a recognition of the extreme difficulty of applying it fully in face of professional conservatism, parental prejudice, and the requirements of external examinations. When we reflect, too, how long must elapse before post-war Scotland can have the reduction in numbers and the re-equipping of schools which the new methods in their entirety demand, it is plain that reforming zeal must come to terms with circumstance.

127. But such an admission is fully consistent with a conviction that the pioneer work of the past forty years has been of the greatest value and that, in the task of providing secondary education for all the nation's children, the future will be more and more with those methods that have the child as their starting point and activity as their keynote - though it looks as if the triumph of the new would come by

infiltration rather than by direct assault. Meantime, the work of the reformers should be a perpetual challenge and should, like the Socratic gadfly, sting the educator out of all complacency with what Nunn has called "the barbarous simplicity" of class instruction.

*The Content of Education. p. 47.

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128. As an immediate contribution towards the improvement of secondary school methods, we submit the following recommendations:

(1) A larger place should be given in all secondary curricula to various forms of practical and aesthetic activity, to further the development of individual and group work and prevent an excess of class-teaching.

(2) Even within the general framework of class-instruction and subject-content, every chance should be taken to make use of centres of interest, carry out limited projects, and bring teacher and taught into the new relationship such activities involve.

(3) All the traditional subjects should be continually thought of and presented not so much as bodies of ordered knowledge but rather as great fields of human endeavour and achievement. This means far more attention to historical background and a new effort to give the pupil, especially the non-bookish pupil, a sense of purpose in what he is doing.

(4) At the beginning of each term, the attempt should be made to give pupils some indication of the whole range of work proposed for them, and of the probable time and labour involved in the mastery of its various parts; and, as the weeks pass, there should be graphical or other devices to show to what extent the programme is being fulfilled. To leave children working blindly from day to day on successive fragments of a whole they have never clearly envisaged is an effective way of killing interest and ambition. All too often pupils cannot see the wood for the twigs.

(5) Much that is presently extra-curricular, such as debate and dramatic work, should come within the curriculum itself; and, in two directions efforts should be made to "socialize" class periods:

(a) By the fullest use of discussions, mock trials, various forms of meetings, and similar devices that in large measure transfer the control of class-activity from the teacher to the pupils themselves;

(b) By substituting for competition, individual rivalry, and the familiar machinery of marks and merit lists, a truly

co-operative spirit, and by creating situations in which youngsters are not merely allowed but encouraged to help one another. As Dewey said, "The only way to prepare for social life is to engage in social life."

(6) Schools might try the experiment of a few periods in the week when pupils would be free, Dalton fashion, to pursue some study of their own choosing in 'subject' rooms with the specialist teacher at hand to guide. Alternatively, where the staff and the specialised accommodation are available, one or two afternoons a week might be given to hobbies or approved activities, including that excellent form of cooperative activity, the class magazine. Such arrangements give teachers and pupils set in the old ways the chance to adjust to a new relationship and they allow of novel methods being tried on a scale where any mistakes made are not catastrophic.

(7) Every chance should be taken to give realism and relevance to school studies by visits and excursions. We deplore the provision in

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the Code* which requires headmasters to intimate such departures from normal timetable to His Majesty's Inspector through the Director of Education several days beforehand and to obtain permission for them. Such a regulation, in our opinion, cramps the proper freedom of the schools and tends to discourage what should have fullest official encouragement. We recommend that it be rescinded.

(8) The duty of co-operation between departments in a school should be preached in season and out of it, and headmasters should accept some little sacrifice of conventional orderliness if the prevailing compartmentation can thereby be diminished and even a modest degree of integration be achieved.

(9) Where a school is prepared to attempt a major experiment in this field of teaching methods, the education authority should try by voluntary transfer of staff and pupils to ensure favourable conditions; and, the experiment once approved, should give the headmaster every encouragement and a free hand over a sufficient period. Moreover, the Secretary of State should be asked to use his good offices with the universities, professional bodies and others to ensure that the products of such an experiment are in no sense penalised. (America supplies a useful precedent here to which we refer on page 51 of this Report). Unless such conditions are fulfilled, it is not reasonable to expect that the spirit of venture will find much expression in the public schools of Scotland.

129. We believe that such experiments will have much fairer prospects of success when effect has been given to our proposals for the reform of primary education. The secondary departments will then be able to look for a generation of pupils in whom the bright promise of the kindergarten stage and the ability to combine freedom with purposeful activity have not been destroyed by five years of passivity and routine class-teaching.

4. Specialist Teaching

130. We have kept for separate treatment a subject on which we have taken much evidence and have reached very definite conclusions, namely, the proper place of the specialist teacher. Our attention has been drawn to the case of a secondary schoolboy of fourteen who has twelve teachers. This is merely a particularly monstrous example of a prevailing folly, and we express our grave concern at the excessive and premature use of specialist teachers in the lower classes of secondary schools. This aggravates every difficulty and defect in the system of class-teaching. Children pass at twelve from the security and steadying influences of the primary class-rooms, and during the difficult years that follow we subject them to a system which bandies them about period by period from one specialist teacher to another with results that are thoroughly bad, save for the very able and self-reliant few.

131. No one really knows the children, for no one takes enough of their work to get close to them. Compelled to adjust themselves to half a dozen different personalities in the course of the day, they have no sense of belonging to anyone. Their work is not co-ordinated, because where six or eight persons are responsible, no one is responsible; and under such conditions, the 'form-master' is little more than the teacher who keeps the class register. We are

*Day Schools (Scotland) Code. 1939.

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not blaming the specialist teachers. Their keenness is beyond question, but inevitably it is first and foremost enthusiasm for their own special study. Teach several subjects to one class and you will be a teacher of children, but teach one subject to several classes and "where your treasure is, there will your heart be also."

132. We hold it to be imperative that in the junior secondary years the usual class subjects should be taken by one or at most two teachers, whose interests would centre not in specialist studies but in that high and challenging task - the education of ordinary children. Such teachers would have in the best sense a proprietary attitude to the class, and being entrusted with a large share of its school time they would be free to soften the sharpness of "subject" divisions, to pursue a project in some disregard of the period bell, and to promote both the integration of the pupils' work and the community value of their school experience.

133. But there is a deeper sense still in which the child and the adolescent need, not the scattered attentions of many teachers, but the unhurried and understanding care of one. We have assumed throughout this Report the immense value of the modern science of

education, with its techniques and its psychological equipment; but, unless we are to go back on all we have said about human personality, we must attach an equal importance to the immemorial art of teaching. There is an understanding which comes not from analysis and observation but rather intuitively, from the slow commerce of person with person, a spiritual quality in the relation of teacher and taught which has been nobly affirmed by Jacques Maritain - "What is of most importance to the educator is a respect for the soul as well as the body of the child, the sense of his inmost essence and internal resources, and a sort of sacred and loving attention to his mysterious identity, which is a hidden thing no techniques can reach."* We are satisfied that such deep and fruitful insight and the power it gives to deal wisely with young life will rarely be gained in the fleeting contacts of specialist teachers with a succession of classes

134. That there are difficulties in the way of a return to the real form master we recognise: that they are insuperable we do not admit. Our proposals for the training of teachers] should in due course make available men and women of more general qualifications; but if we are right in thinking that the honours courses will continue to attract the bulk of the abler students, it is important to ask whether the only way of using young honours graduates is as narrow specialists. We suggest that there is a middle way; to use them as to half their teaching time on their special subjects, and to give the rest to work on a wider front with a particular class. What matters here is less a change of qualifications than a change of attitude. These are teachers of high intellectual quality, and if they are willing to bring the same keen intelligence to the schooling of children as to the presentation of a single subject, need there be too nice a scrutiny of their title to teach a group of studies at a modest level? On the contrary, we recommend that great discretion should be left to headmasters to use staff as they think wise and that no rigid regulations should be allowed to bar the way against a much needed reform.

*Quoted by Sir Walter Moberly in "Plato's Conception of Education", 1944.

†Report on the Training of Teachers. Cmd. 6723.

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CHAPTER VII

THE ORGANISATION OF SECONDARY EDUCATION

1. The Present Position

135. In its layout every system of secondary education must represent a compromise between fresh ideas and a pre-existing situation. When at the close of the first world war the newly established education authorities set about implementing the terms of the Education (Scotland) Act of 1915, the new and constant factor was the obligation to prepare and submit for the approval of the Scottish Education Department, and to carry into effect after approval, a scheme for the adequate provision throughout the education area of the authority of all forms of intermediate and secondary education in day schools (including adequate provision for teaching Gaelic in Gaelic-speaking areas) without payment of fees: the variable lay in

the very different situations existing in small and in large centres of population.

136. In the former, the secondary school was seldom so large as to preclude a considerable expansion, and in almost every case the new provision was simply grafted on to the old. Additional staffing, accommodation and equipment, and the setting up of shorter and more practical courses alongside the traditional ones, turned what had been academic schools of limited size into big comprehensive centres of post-primary education, designed to meet the needs of a whole community. Examples of such transformations may be seen in schools like Montrose and Elgin Academies.

137. In the larger burghs and in the cities, however, numbers made a duplication or a multiplication of schools inevitable, and a major issue of policy had to be faced. Influenced, no doubt, by the Department's Circular No. 44, issued at the close of 1921, the authorities decided against the setting up of multiple schools of identical type or of multiple schools equal in status but differentiated in function. What they did was to continue the established secondary schools, and over against them gradually to develop out of the existing "supplementary courses" two and three-year centres for the less bookish pupils. Established many years before in most areas, these supplementary courses had, with honourable exceptions, "tended to be starved and neglected", and much had to be done in building up adequate standards of staffing, accommodation and equipment. Pupils were tested and graded at the age of transfer from the primary school, the attainment of a certain standard being a condition of their entry to the five-year centres. This procedure, modified in detail over the past twenty-five years, has given us in the cities and larger burghs of Scotland the familiar set-up of senior and junior secondary schools.

2. The New Situation

138. If this is the existing situation that must constitute a limiting factor in any further advance, what are the new educational values and convictions which must find expression in the secondary school organisation of the years ahead, with compulsory schooling extended to fifteen and later to sixteen years of age? We take them to be these: (1) Not merely must every child be given secondary education suited to his age, ability and aptitude, but the education of every child, bright and less bright, bookish and practical, must have equal importance in the eyes of the community and must be provided for with equal

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care and generosity. (2) Since secondary education is education in and for community, the good school must in its variety of types and range of ability reproduce something of the richness of a natural environment. (3) While a secondary school should be large enough to allow of a fully varied curriculum, it should not be so big that its headmaster ceases to exercise any personal influence and becomes simply an administrator.

(1) THE VERY LARGE MULTILATERAL SCHOOL

139. We have reached the conclusion that the maximum secondary roll should be six hundred, a figure which has the approval of the professional organisations, and, while we must beware of undue rigidity in such matters, we think the numbers should not far outrun that figure. It follows that we cannot recommend the setting up of huge multilateral schools on the American model, as favoured by the London County Council, with two thousand or more pupils in each. The unity we seek is organic not merely administrative, and we do not believe it can be realised with such vast numbers merely by setting a collection of sub-schools of different kinds on a common campus and calling them one school. In this connection, the university or institute, with constituent colleges, affords no safe analogy for the school life of children and adolescents.

(2) THE ENGLISH TRIPARTITE SYSTEM

140. We have taken account of the tripartite organisation of secondary education proposed for England, with grammar, technical and modern schools, equal in status and amenities but clearly differentiated in function. Such a scheme has the obvious attraction of administrative tidiness, and it would, no doubt, be economical in its avoidance of duplicated courses and equipment. Apart from any question of distribution of population we consider that there are decisive reasons against its adoption in Scotland. (1) It is so unrelated to our existing system, with its multilateral secondary schools, both senior and junior, that it would mean not a development but a revolution. (2) The whole scheme rests on an assumption which teacher and psychologist alike must challenge - that children of twelve sort themselves out neatly into three categories to which these three types of school correspond. It is difficult enough to assess general ability at that age: how much harder to determine specific bents and aptitudes with the degree of accuracy that would justify this threefold classification. (3) Status does not come with the attaching of a name or by a wave of the administrative wand, and the discussion to date has left the position of the modern school neither defined nor secure. Indeed, it seems clear to many that the modern school will in practice mean little more than what is left, once the grammar and technical types have been housed elsewhere, and that the scheme will end not in tripartite equality but in a dualism of academic and technical, plus a permanently depressed element. (4) But even if the tripartite scheme were wholly feasible, is it educationally desirable? If education is much more than instruction, is in fact life and preparation for life, can it be wisdom thus to segregate the types from an early age? On the contrary, we hold that school becomes colourful, rich and rewarding just in proportion as the boy who reads Homer, the boy who makes wireless sets and the boy without marked aptitude for either are within its living unity a constant stimulus and supplement one to another.

141. We would make it clear, however, that while we must reject the tripartite scheme as a normal basis of secondary school organisation, we admit the possibility that in certain circumstances schools may with advantage be differentiated functionally.

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3. The Alternatives in Scotland

142. Within this important field of our remit, our main consideration and the taking of evidence have naturally had regard to the relative merits of the two forms of organisation that co-exist in Scotland, the omnibus secondary school and the system of senior and junior secondary schools.*

143. Subject to what we say in paragraphs 161 and 180 to 182 we have reached the definite view, which accords with the conclusions of all the teachers' organisations and of the Association of Directors of Education, that the omnibus secondary school best embodies the ideals of the new age; and, except where impracticable, we prefer it to any other type of organisation. And by an omnibus school we mean one which accepts all the post-primary pupils of a community or of a given area. Such a school embraces the whole range of secondary education not in time only but in diversity of courses, and in provision for different intelligence levels, from the highest down to that at which the pupil ceases to find a place in the normal school.

(1) SENIOR AND JUNIOR SECONDARY SCHOOLS

144. Many of the reasons for our preference are implicit in our criticisms of other forms of secondary school organisation; and it may further clear the ground if, before dealing with the omnibus school directly, we indicate why we cannot be satisfied with the existing set-up of senior and junior secondary schools in our cities and large towns.

145. That the junior secondary school has in many places done good work and made a real contribution to educational advance, we gladly acknowledge: that, in spite of this, it has failed to establish itself in the eyes of Scottish parents and teachers in general, sheer weight of evidence compels us to admit. The problem has two main elements - (1) the status of the junior secondary school, and (2) the selection of pupils for secondary education.

(2) STATUS OF THE JUNIOR SECONDARY SCHOOL

146. For Scotland, secondary education still remains pre-eminently a schooling in academic subjects. Our educational past, the great influence of the universities, and the extent to which in a country of limited resources higher education has always been an education away from more active pursuits into the learned professions - all these have combined to attach immense prestige to the traditional bookish curriculum and to the school which provides it. This alone would have imposed a heavy handicap on the short-course schools in the years between the wars, but the difficulty of establishing them in general regard has been aggravated by many other factors.

147. There is first the contrast of long and short course schools. The school which takes the pupil right to the threshold of every form of professional training naturally seems preferable to one which on a superficial view goes only half the way. Admittedly, the great majority of the pupils entering the senior secondary school are destined not to complete more than three years, but with many parents and employers alike other considerations have weighed against the fact that a shorter course, planned as such and duly completed, is far more profitable than the early stages of a longer curriculum. Again,

the senior secondary school is as a rule selective, while the junior is not, and it seems a

*These names, senior and junior secondary schools, have no official sanction, but they are commonly used and understood to mean schools offering five- or six-year courses and three-year courses respectively.

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fair deduction that the school which is open only to certain levels of ability and attainment is more desirable than one which is open to all. Consequently, the bright pupil, though free to choose, goes as a rule to the long-course school, irrespective of the time he is likely to stay there - and the less bright pupil wishes he could do the same.

148. Very crippling also to the junior secondary school is the narrow age range within which it has to work. With no boys and girls over fifteen, and few over fourteen, it lacks pupil leadership of the kind that counts for so much in the development of extra-curricular activities and community spirit.

149. It must be remembered, too, that a big proportion of the headmasters and teachers appointed to the short-course schools have themselves been in the older tradition, academically trained and partial to the familiar ways. Hence, in a situation where the only hope of success was with the pioneer, too many have kept close to the known paths, and, confronted with children who came to them rather unwillingly, found little to hold their interest and left at the earliest possible moment, they have tended to think that their professional lot was not an enviable one. And such feeling is infectious. To labour with an unbroken succession of average or sub-average classes, within a curriculum which still leans too far to the bookish side, is a severe test of professional zeal and idealism: small wonder, then, if in many cases the teachers' sense of disappointment and frustration has silently communicated itself to pupil and parent, heightening their own feeling that in the educational scheme theirs is a place of inferiority.

150. Lastly, education authorities themselves must take their share of blame. In quality and generosity of staffing, in salary scales and promotion schemes, in the provision of equipment and amenities of all kinds, they have been too often unfaithful to their profession that the junior secondary school falls no whit below the five-year centre in importance and esteem.

(3) SELECTION OF PUPILS FOR SECONDARY EDUCATION

151. Our views on the transfer of pupils to secondary work are stated in the Report on Primary Education, the relevant section of which is, for convenience, included in Appendix 2 of this Report. Here we are concerned with the problem raised for the educator and the parent alike by a form of secondary school organisation which compels the grading of children at the age of twelve and their allocation to schools differing in curricular content, in length of course and - for the reasons we have given - in status.

152 Recent advances in psychology and mental testing have undoubtedly given the educationalist valuable instruments for the

assessing of native ability and scholastic attainments, and when these instruments are combined with the estimate of the primary teacher, who has long known the child, a high degree of reliability can be secured. But where a child's future is in question, a high degree of reliability is not enough: when much hangs on the verdict, and once given it is very hard to reverse, there can be no complacency because misjudgments are relatively few. And are they so few? Teachers and administrators are becoming more and more conscious of the uncertainty attaching to all prognosis at this stage. The distorting effect of strain or health-upset at the time of testing; the compensatory factor of character and ambition; the plus or minus value of home environment; the possibility of late development: the unpredictable changes that will come with adolescence - all these together make it certain that, once we have drawn the line, there will be above and

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below it a considerable marginal area containing some destined for success and some for failure, but which for which we cannot tell, save by putting the matter to the proof.

153. Nor is it exaggeration to say that the verdict passed on the twelve-year-old is extremely difficult to reverse. Nothing has been more disappointing in recent years than the rarity of transfer between junior and senior secondary schools. By the time the "misfit" is discovered, courses have already diverged, the pupil has begun to push down his roots, and the school authorities are reluctant to press a transfer which in the one case means a de-grading and a humiliation, and in the other the loss of a promising and attractive youngster who himself rebels against his elevation to the senior secondary school.

154. If this system of selection at twelve gives the educationalist an unquiet conscience, it has likewise given many a good Scots parent a sore heart. It is easy to accept the general truth that only a certain proportion of children are capable of profiting by a certain type and range of secondary education; but it is very hard for any of us to admit the particular truth, the galling truth, that our own boy or girl is one of those who are not. Can we then expect that the best type of working-class parents, earnest, provident and properly ambitious, will readily acquiesce in what they regard as a slamming of the door of opportunity at the very outset? They have their own estimate of the youngster who in the home and at play shows so much liveliness and capability, and so the attitude of the school authorities seems the veriest unreason. Against the evidence of school records and test scores they set their own faith and ambitions - and that argument which, though it be nine parts wishful thinking, yet contains a residuum of truth that their boy might be the exceptional case and that "you never can quite tell how a child will turn out."

155. Moreover, the resentment of the parent at the refusal of choice of school is sharpened by the knowledge that this selection procedure is not applied consistently throughout the whole social range. He notes that the economically more favoured sections of the community secure by payment of fees precisely what is denied to himself, the right to ignore the educational verdict at age twelve and send his child to the school of his choice, to follow a curriculum that promises to lead to the more desired kinds of career.

156. We cannot evade the question how far a system that leaves this root of bitterness is either socially healthy or compatible with that concern for the rights and wishes of the parent which finds expression in the Education (Scotland) Act of 1945.

(4) THE CASE FOR THE JUNIOR SECONDARY SCHOOL

157. Such are the formidable objections to the system of senior and junior secondary schools, with selection at twelve, as they have been, put to us by witnesses or have emerged from our own examination of the problem. But it must not be thought that there is no other side to the argument: for even now a brighter picture could truthfully be painted. We have evidence of junior secondary schools that have not stultified themselves by a weak imitation of the senior secondary school but have, on the contrary, evolved distinctive courses of a practical kind, sought a fresh approach to the more bookish elements in their curriculum and, despite difficulties, developed community spirit, school loyalties and a character of their own. We are satisfied that these schools have secured a considerable measure of public esteem and are fulfilling a very useful purpose. In this conviction we are fortified by the evidence of two witnesses who out of a particularly wide experience hold that any un-

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qualified condemnation of the junior secondary school at this stage would be premature and insufficiently based. Stress must be laid on the fact that the new short-course schools have had a relatively brief trial and under conditions both confused and adverse.

158. The initial failure to raise the age to fifteen was a crippling blow, for the lower leaving age allowed time neither to follow out a curriculum nor to cultivate community values, and the attitude of the average child was coloured almost from the outset by the imminence of his departure. But, with the age raised to fifteen and inducements to stay on to sixteen in the form of more generous bursaries and a curriculum of stronger vocational appeal, the situation will, it is argued, be transformed for the better. Again, it must be remembered how big a part of the life of these schools has lain within the long period of economic depression and the succeeding years of war, with everything militating against continued attendance beyond the statutory age; and it is no excess of optimism to look forward to more settled and favourable conditions.

159. Moreover, it is claimed that, just as the higher leaving age will give new scope and possibility of pupil leadership to the junior secondary school, so the enhanced value attached to technical knowledge and skill will secure them an increased share of the abler boys and girls, and that in due time a new generation of teachers with less academic bias will see in the service of these children not a professional second-best but a job which is as satisfying educationally as it is socially worthwhile. Time may bring a change in the attitude of parents also. There is some evidence that in the United States, where there has been longer experience of the newer types of secondary education, parents have come to appreciate their value and are more ready to accept the guidance of the psychologist and the expert in mental tests.

160. Finally, we strongly support four suggestions that have been advanced, as likely to strengthen the position of the junior secondary school:

(1) That any three-year school which shows signs of "growing" a IVth Year or even a Vth Year, should be not merely allowed but encouraged to do so:

(2) That, where this is not possible, everything should be done to bridge any gap between the IIIrd Year of the junior secondary and the IVth Year of the senior secondary school:

(3) That the senior secondary school should not *in its first three years* duplicate those courses with a practical bias which more properly belong to the junior secondary school. It does seem clear that, if the short-course school has nothing distinctive to set against the longer curriculum and traditional prestige of the other, its position is made impossibly difficult. While, therefore, we would not deny a senior secondary headmaster the right to give all his boys eight periods a week of benchwork, if that were an expression of his own educational faith and enlightenment, we do not think he should be free to institute such a course for some only, since it then becomes merely a tacit admission that he is catering for a group of pupils who should be in the neighbouring junior secondary school:

(4) That the name "junior secondary school" be no longer used, as it has in fact conveyed a suggestion of inferiority.

161. These arguments and suggestions do not, in our view, dispose of all the serious objections to the junior secondary school and are, indeed, rather

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the substance of things hoped for than demonstrable certainties. Nevertheless, we are convinced that there are adequate reasons why the system of senior and junior secondary schools should be given a longer trial under more favourable conditions, wherever an education authority considers that the adoption of the omnibus school system is not in the best interests of its area.

(5) AN OBLIGATION TO COMPLETE THE FIVE-YEAR COURSE?

162. It has been strongly represented to us that the relative positions of the five and three-year secondary schools would be much healthier and a great part of the admitted wastage in the former avoided, if entry to the senior secondary school were conditional on a binding undertaking by the child's parent that the course would be completed. Leaving aside the question whether such a complete separation of long and short-course pupils would be desirable, we are satisfied that the proposal is impracticable. Even if such a contract could be legally enforced, which seems very doubtful, there is obvious objection to a

binding undertaking between two parties, where its real, if not its formal, fulfilment is dependent on a third party, and that an immature adolescent. Experienced headmasters assure us, too, that, apart from the uncertainties of circumstance, it would in very many cases be impossible to say at the beginning which boys and girls will turn out five-year pupils and which three. While we are sceptical about the restraining effect of such a condition on the irresponsible parent, we fear that the conscientious one might too often shrink from a promise which he doubted his ability to fulfil - with consequent injustice to the child and loss to the nation. But, though we cannot approve any form of compulsion, we sympathise fully with the concern which prompts the suggestion that an obligation to complete the course might be imposed. We hope that the more generous provision of bursaries we have recommended* and the development of an adequate vocational guidance service will do much to lessen the premature leaving of able pupils.

163. There will, however, always be distressing cases; and we recommend that before any boy or girl of high promise is allowed to leave school early and, in all probability, be lost to advanced education and responsible work, the joint persuasion of the headmaster, the director of education and a member of the education committee specially interested in the school concerned should be brought to bear on both pupil and parents. In our opinion, this would be time well-spent

(6) THE CASE FOR THE OMNIBUS SCHOOL

164. Briefly, the case for the omnibus school is that this is the natural way for a democracy to order the post-primary schooling of a given area; that it escapes many of the disadvantages attaching to other forms of organisation; that it mitigates, though it does not wholly solve, the vexatious problem of selection and grading; and that, better than any other plan, it promotes the success of the school as a community.

165. The claim that the omnibus school is natural is difficult to counter, unless we are prepared to make light of all else a school may be and do, treat it as little more than a place of instruction, and agree that the instruction will be effective just in the measure that the pupils are homogeneous in type and ability. But even so the argument is insecure, for it ignores the extent to which the most progressive schools are rebelling against the dominance of class teaching and seeking new methods and techniques by which justice may be

*Report on Education Authority Bursaries, Cmd. 6573.

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done to that diversity of creatures which is at once the charm and the challenge of the omnibus school.

166. The omnibus school has the great advantage of not rousing bitter feeling over transfer and selection for secondary education. The decision in regard to a child is not publicised by his having to go to one school rather than another; and while his allocation to a particular course may disappoint himself or his parents, it does not cause the resentment that attends a policy of segregation into different schools.

For what counts most with the parent is not that the children are in different courses but that they are in the same school, sharing its advantages and amenities, with their schooling entrusted to the same headmaster and staff.

167. Moreover, the problem of transfer and selection, though still difficult, takes on a different complexion. As all the children are passing under one roof, decisions in marginal cases have a provisional quality and escape the depressing suggestion of finality that follows allocation to separate schools. Then, too, as the passage of time reveals where judgment has been faulty and adjustment is necessary, transfer has the relative simplicity of a purely domestic change. It is not complicated either by the child's natural reluctance to sever ties or by the possibility of conflicting views between schools; and, in so far as a successful change of course depends on a little extra help and encouragement at the right time, these are more likely to be forthcoming in the school that already knows the child and has a warm interest in him.

168. No form of organisation will in itself ensure fruitful human relationships, but in the omnibus school all the raw materials of community life are there for an enlightened staff to work up into something fine and socially valuable. It has the variety of types and curricular activities that the functional school must forgo: it has the age range and the share of high intelligence for lack of which the life of the short-course school so often languishes. Its games and corporate activities cut across curricular divisions, bringing together in a common interest boys unlike in type and talent, and these new groupings mean an enrichment of experience for all in the discovery by each of his strength and weakness in relation to the rest. Without glossing over differences in natural endowment, we must aim at a school so richly varied in personnel, equipment and range of activities that it will escape the priggish exalting of the purely intellectual or clerkly gifts which has so falsified our values and impaired our social health. It is a poor education that does not draw human beings into participation in many things they do rather badly, a thin and partial conception of leadership in which the same folks are not sometimes leaders and sometimes led.

169. Our Report on Training for Citizenship* made it clear how much importance we attach to the school's part in inculcating the community virtues. Here no single factor counts for more than the presence in a school of able boys and girls of maturer years. They mediate the adult world to youngsters just emerging from childhood and pass on the traditions of the school as headmaster and staff cannot do. They are exalted beings indeed in the eyes of their juniors, but not too impossibly remote for imitation. They provide the natural leadership, giving direction to the rather formless enthusiasms of younger pupils, and their example may be potent where precept and exhortation fail. We have ample evidence that, in the development of their corporate life,

*Cmd. 6495.

the short-course schools feel crippled by the lack of this irreplaceable influence which the best of the senior pupils have always exercised in the secondary and "public" schools.

(7) OBJECTIONS TO THE OMNIBUS SCHOOL

170. Two main objections to the omnibus school have been put before us, the one educational, the other financial.

(a) The Educational Objection

171. The omnibus school, it is argued, makes impossible demands on headmaster and staff, calling for a width of knowledge, interest and understanding that only rare individuals possess. So great is the intelligence range, such the diversity of types that even able heads and teachers cannot compass them and preserve the balance and unity of the school. If their minds are oriented to the abler pupils, the needs of the majority will be neglected; if they are adequate to the practical and community training of normal and below-average children, the interests of the bookish minority will suffer.

172. Now, it would be idle to deny that this objection has a basis in fact, though it is not equally valid of all omnibus schools; but we are entitled to ask whether the limitations described are inherent and inescapable, or are not rather accidental to a given situation and stage in educational advance.

173. In many cases what had been a selective and fairly homogeneous school was expanded into an omnibus, and it is hardly surprising if schoolmasters of settled habits failed to adjust themselves fully to a changed situation which was neither of their making nor greatly to their taste. But we are not without evidence of a more favourable cast. In the fee-paying secondary schools of our cities, as in the "public schools" themselves, which have never been highly selective on educational grounds, we have long had something which, if not strictly the omnibus school, has many of its features and raises many of its characteristic problems. It can be claimed that at their best such schools have achieved real success in dealing with very diverse types. They have maintained high academic standards with their able boys, while the less bookish majority have always had their own place and welcome, have been handled with considerable understanding and have found some field of achievement, if not always within the classroom, at any rate within the total activities of the school. The significance of such evidence we take to be this: these schools have succeeded in reconciling the claims of the few and of the many not because their staffs are intrinsically superior but because their attitude is different. They are, one might say, not better teachers in the strict sense but better schoolmasters, inasmuch as the tolerant tradition of the school and its greater range of activities have led them to subordinate the teaching of a subject to the wise handling of assorted immature humanity.

174. As a fuller professional training and a shifting of educational values gradually bring all young teachers to this more generous conception of their office, this objection to the omnibus school, which makes it too wide for their sympathies and powers of control, will melt away. To think otherwise is educational despair, for it is to hold that we shall never produce teachers of high scholarship and

intellectual power without sacrificing those other qualities of homeliness, practical resource and adaptability that enable a man or woman to make effective contact with ordinary youngsters. Indeed, it would not be perverse to go further and maintain that the teacher who cannot make good in the omnibus school will never have the best kind of success even in the highly selective school for which he yearns.

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(b) The Financial Objection

175. The really formidable objection to the omnibus school is the great difficulty of avoiding either excessive size or excessive cost, a difficulty that increases as courses become more diversified and are given that practical emphasis that means equipment and apparatus. It is necessary, in weighing this objection, to distinguish clearly between (1) the years of compulsory schooling, and (2) the stage thereafter.

176. Since we are concerned with long-term policy, it is legitimate to think of (1) as covering the years from twelve to sixteen, especially in view of our recommendation that junior secondary schools be allowed to "grow" a IVth Year and our expectation that certain changes we propose in the system of examinations and certificates, together with more generous provision of bursaries*, will result in an increasing proportion of boys and girls continuing at school till sixteen without any compulsion.

177. Within this part of the school (what the Norwood Report† called the "Main School" as distinct from the VIth Form) we are satisfied that the omnibus principle can operate without waste of staffing, provided the total school roll is about 800. This is a third more than the figure we recommend as applicable to secondary schools in paragraph 139 where we were specially concerned to ensure the personal influence of the headmaster on his pupils, but we feel that the concession is worth while, if it secures the advantage of the omnibus school.

178. There remains the objection that the omnibus organisation involves duplicating expensive equipment in an area where, with a functional grouping of schools, a single provision of it would suffice. To this it can only be replied that there are cases where what is educationally superior must be preferred even if it costs more, provided the extra cost is not excessive, and that, while equipment for practical courses undoubtedly involves substantial initial expenditure, it does not over a period of years represent more than a fraction of the total cost of running a secondary school.

179. In the larger Scottish burghs, where two secondary schools are required, there would be some saving on equipment in setting up omnibus schools for boys and for girls, an arrangement commended also by the completeness with which it gets rid of the rivalries, conflicting claims, and soreness about status that can be particularly troublesome in a community of this size. We take this opportunity to say that, in our opinion, dogmatic pronouncements about co-education are out of place. We have found no reason why Scotland should generally abandon it; but, on the other hand, co-education is

not something sacrosanct and never to be departed from, even where the single-sex school offers solid advantages.

180. As to (2) it is at the VIth Form stage (16-18) that the objection to the omnibus school on grounds of expense becomes very serious, and it is difficult to believe that education authorities in cities and other areas of dense population will feel it possible to provide the whole array of courses in the very small "tops" of a multiplicity of schools. Clearly there must at this stage be some concentration of pupils or some differentiation of the functions of schools or perhaps both. There would seem to be three possibilities:

*Report on Education Authority Bursaries, Cmd. 6573, paragraph 32.

†Curriculum and Examinations in Secondary Schools, H.M. Stationery Office. 1943 Price 1s 6d.

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(1) The most revolutionary proposal that has been put forward is to make 16, like 12, a point of transfer for all pupils, and to concentrate the work of the 16-18 period in one or two centres having no younger pupils at all. Convenient and economical as such an arrangement might be, we advise strongly against it, on the ground that it would be impossible in so short a time to weld elements from many quarters into the unity of a school. These 16-18 centres would suffer from much the same weakness that proved fatal to the junior secondary school when confined within an age range of two years; and, while at their best they might become efficient tutorial institutes, we do not see how they could ever be in any real sense "schools".

(2) The various "advanced courses"* might be portioned out among all the secondary schools of an area, so that each had a 16-18 top, but confined to a homogeneous group following one uniform specialised curriculum. Such a plan certainly carries the doctrine of equality of status right to the top of the school system, but it is open to the objection that it involves a break in school life for a very big proportion of the sixteen-year-olds. Nor does it achieve as much economy in staffing as might at first sight appear, since in addition to its one "advanced course", every school would have to provide that range of general education in English, Religion, Principles of Science, etc., which is as much an integral part of the VIth Form curriculum as are the specialised studies.

(3) The work of the 16-18 pupils might by transfer be concentrated in such number of the secondary schools of an area as would ensure classes of reasonable size and avoidance of waste in the use of highly qualified staff. Moreover, not all these schools need offer every "advanced course", i.e. there could be combined with centralisation of the older pupils some differentiation of the work of the schools at the top. Admittedly, such an arrangement perpetuates the distinction between longer

and shorter-course schools. But, if the shorter-course school has a four years' span and provides courses that lead on to VIth Form work (even if that has to be taken elsewhere), need it suffer in general esteem?

181. And in the end, common sense must oppose an extreme and doctrinal insistence on equality of status for all schools that clearly involves the squandering of public money and, what is even more serious, the gross waste of that limited store of highly qualified teachers which, even if carefully husbanded, will barely suffice for the country's educational needs.

182. It will be seen that an advocacy of the omnibus school has to admit of some qualification in regard to the top of the school. We regret this, but there would still, in our opinion, be great gain on social as well as educational grounds if the country could get rid of segregation at twelve and, within a system of omnibus schools, preserve the unity of general secondary education up to the age of sixteen.

4. Pre-Apprenticeship Classes

183. Quite early in our deliberations we gave close attention to the work of the junior technical schools in England and of the pre-apprenticeship building and engineering classes in Scotland. We could not but be impressed by the

*It is convenient to employ this term which has long been used in England to denote specialised courses for secondary pupils who have already taken the School Certificate.

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keenness of the young people in these centres; indeed, the clear evidence how greatly the schooling of ordinary boys and girls is vitalised by the infusion of practical work and by the satisfying of a nascent vocational interest has considerably influenced our own recommendations on secondary education. On the other hand, we were conscious of the loss to the junior secondary school in the withdrawal of these desirable pupils, and of the danger that the course given to the pre-apprenticeship boys might, in isolation, tend to become weak in the elements of a general education.

184. We are glad, therefore, to find that the solution we proposed is in fact the only one consistent with the terms of the new Act and the imminent raising of the leaving age, namely, that, instead of taking the thirteen- or fourteen-year-old out to a pre-apprenticeship course, we should rather bring the essentials of such a training into the work of his last year or two in school. The varied provision for practical work which we suggest in Chapter X, if found sufficient to hold the interest of the boy of fourteen, will lead on very naturally to the more specific vocational training of the years that follow. We take it for granted that pre-apprenticeship classes will continue, but as an alternative to attendance at the junior colleges; for such full-time courses, end-on to the work of the secondary school, and filling the gap till apprenticeship proper can begin at sixteen, should be a very valuable part of post-primary education in Scotland.

5. A Common First Year

185. Some prominence has been given to the suggestion that there should be for all pupils a "common course" throughout the 1st Year of the secondary school; but, though we are very sensible of the difficulties this proposal seeks to get rid of, we cannot commend it.

186. The demand for an undifferentiated 1st Year springs from the admitted fallibility of selection procedures at the age of transfer and from the belief that a session of post-primary schooling brings out the quality and bent of the pupil far more clearly than we can discern them at the end of the primary stage. This is, within limits, true; but it is possible to exaggerate the gain in predictive accuracy at the end of an exploratory year and erroneous to conclude that the problem of selection has then disappeared.

187. Professor Wm. McClelland found that a good battery of tests at the qualifying stage gave a correlation with 2nd Year performance as high as .829, while average marks in 1st Year correlated with 2nd Year performance to the extent of .894.

188. This undoubtedly represents a reduction in the number of misfits; but, as Professor McClelland very properly pointed out, "As usual, there is a debit side to the account. If in the probationary year we do not introduce the characteristic subjects of the senior secondary course, we have no real test of the child's reaction to these subjects, and the prognostic value of the probationary year would be considerably reduced. If we do introduce them, we have to set against the saving of misfits the serious wastage resulting from teaching the new subjects to a whole group, many of whom will give them up at the end of one year."

189. We must be clear, too, how much a "common first year" that is to serve its purpose really involves. It means far more than the inclusion or exclusion of foreign language study for all pupils: it must mean in regard to method, content and pace such a degree of uniformity in the teaching of all subjects as will leave pupils so little differentiated at the end of a year that transfer is still quite easy. For anyone who realises how wide must be the

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intelligence range in a normal, unselected group of, say 150, secondary entrants, it is impossible to justify such a policy. The proposal is made in the interests of the majority; but, unless the common year is to be at a level that makes it a disservice to them, it involves a right we can never concede to any majority - the right to slow the natural pace of the abler minority. Equality of educational opportunity can never mean forcing markedly unequal abilities to do the same or equal things even for one year, nor can we atone for a past in which the weak had to pant after the strong by a future in which the strong are made to crawl along beside the weak. Surely, too, it would be a strange irony if at the very time when we are urging the freedom and diversity of individual and group work at every stage, we should try to force the hapless first year pupils on to the Procrustean bed of a uniform course.

190. We submit that the problem of mis-selection must be dealt with along other lines: by improvement of selection techniques, by provision for the starting of a foreign language in the IInd Year or even later: by adequate tutorial help where transfer proves necessary, and, where the segregation into senior and junior secondary schools continues, by erring on the side of generosity and admitting to the five-year course rather more pupils than selection tests would seem to justify.

CHAPTER VIII

EXAMINATIONS AND CERTIFICATES

1. External and Internal Examination

191. We must begin with a distinction which, if obvious and elementary, is yet of prime importance to the whole discussion of this subject. We mean the distinction between the examination which the teacher chooses to employ as a test of his own work and the examination set by some outside body to assess the work of a number of schools or to provide candidates from many schools with certificates that they have reached certain prescribed standards. The former, i.e. the internal test, must be co-eval with the teaching process itself, and it is impossible to envisage conditions under which it would not, in some form or other, survive. It will never, of course, tell the whole story. Within limits, it will reveal what success the teacher has had in imparting factual knowledge or understanding of certain processes of reasoning: but the inspirational effect of his teaching, the feelings it has quickened, the mental attitudes it has helped to create, will elude any precise assessment. The all-important point, however, is that such internal tests follow the teaching logically as well as in time, and cannot determine its aim, content or emphasis. Hence, unless they are ridiculously ill-set or foolishly frequent, the teacher's own freely applied tests are innocuous.

2. The External Examination

192. But the case is very different with the external examination, Here we have a permanent, elaborate machinery, controlled by an outside body and designed to test year by year the products of many schools. If hundreds or thousands of candidates are to be examined, the tests must be uniform and mainly written; and, if the examination is to be carried on over many years, the papers set on successive occasions must maintain an even standard and have reference to the same general content of study. Obviously this involves a defined syllabus which the teachers concerned may or may not have had

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some share in framing, and once laid down, the syllabus must in great measure determine what is taught in all the schools and where the stress is laid. How far a particular examination will dominate the schools depends primarily on what is at stake for the pupils in passing or failing. There is a further stereotyping factor in the influence which previous papers exert on the examiner himself. His close scrutiny of them and his proper concern not to deviate from the standard insensibly incline him to keep his own questions true to type. Hence

the familiar fact that in every examination successive papers tend to take the same recognisable cast and that the same questions recur, thinly disguised, at almost calculable intervals.

(1) THE EXTERNAL EXAMINATION AND THE CURRICULUM

193. The claim that the external examination dictates the curriculum has been often denied, but the latest, and one of the very ablest, defenders of the system, Mr. J. L. Brereton,* admits it freely and goes on to argue boldly that it ought to do so. We can picture circumstances in which we should agree with Mr. Brereton's contention, but these circumstances have for his country and ours now only a historic interest. We have in mind, of course, the conditions that obtain during a great and rapid expansion of secondary education such as both England and Scotland have witnessed during the past three-quarters of a century. When standards are still insecure and a supply of teachers adequate in scholarship and in professional training has to be built up slowly over one or two generations, a wisely directed external examination may be a potent instrument for good. Its defined syllabuses, its proper balance of emphasis, the consistency of its level - all these exert a steadying influence and a salutary stimulus on the teachers while at the same time they help to protect the children against the mistakes of ignorance, the hesitations of inexperience and the vagaries of individual temperament, within a system that is still only half-grown.

(2) EXTERNAL EXAMINATIONS AND THEIR EFFECTS

194. But "new occasions teach new duties, time makes ancient good uncouth". Scottish education is of adult stature, and we are inviting it to assume responsibilities and to show such initiative, inspirational leadership and bold experiment as go ill with the continued dominance of the external examination. For dominance we must call it. The evidence is, in our view, conclusive, and it is too strong to need exaggeration. We do not say that examinations are ruining secondary education in Scotland; but they are gravely distorting it and narrowing its vision. The harmful effect varies as between subjects, being less perhaps in Classics and in some parts of Mathematics, greater in Modern Languages and Science, and in History and English Literature deplorable.

195. The influence of examinations is three-fold. It affects the treatment of the examinable subjects themselves, tending always to exalt the written above the spoken, to magnify memory and mastery of fact at the expense of understanding and liveliness of mind. It depresses the status of the non-examinable, so that the aesthetic and creative side of education, with all its possibilities for human satisfaction and cultural enrichment, remains largely undeveloped and poorly esteemed. And lastly, the examination which began as a means, becomes for many the end itself. In the atmosphere created by this preoccupation with examination success, it is difficult to think nobly of education, to see in it the endless quest of man's preparation for either society or solitude. The cult of the examination has proved all too congenial to the hard practicality of the Scot, and in excessive concern about livelihood, the art of living has tended to be forgotten.

*The Case for Examinations - Cambridge University Press. 1944.

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196. It is said that many teachers like working towards examinations. There could be no more urgent reason for getting rid of them.

197. It is claimed for the examination that it makes boys and girls, especially the less bookish, work harder than they would otherwise do. This may well be true, and we would not be thought to deny a virtue to hard work in any circumstances; but reason and experience alike lead us to doubt whether work so motivated has much permanent value, for external stimulus of this kind, like coercive discipline, operates only so long as the pressure is maintained. In any case, what matters supremely is not the precise amount of factual knowledge young people have acquired at a given age, but whether they are leaving school with alert brains and unblunted curiosity, responsive to excellence of every kind and possessed of such an abiding interest in the things of the mind as will keep them learning and wanting to learn all life long.

198. So far from promoting this high ideal, the external examination is, in our opinion, one of the greatest obstacles to its realisation; and, were it possible to disregard all but purely educational considerations, external tests might well be banished from Scottish secondary schools. There are, however, practical difficulties of which we must take account.

(3) THE ALTERNATIVE TO EXTERNAL EXAMINATION

199. Any alternative to the external examination must be such as will secure the confidence of the business and professional world. At present, over fifty professional bodies accept the Senior Leaving Certificate as satisfying their entrance requirements. It is of capital importance that whatever is substituted for that Certificate in its present form should be similarly accepted. Otherwise these professional bodies might set up a multitude of sectional tests, conflicting in their syllabuses and inevitably chancy in their results, and the last state of the schools would be worse than the first.

200. Fortunately there are signs that some enlightened industrialists and business men are themselves beginning to doubt whether the familiar Certificate as at present awarded really answers their questions in regard to the products of the schools, whether indeed they have in the past been putting the right questions at all. This encourages our hope that by opinion may without great reluctance be reconciled to the disappearance of the external examination, provided it can be assured that teachers' estimates are properly standardised and certificates are not awarded upon the arbitrary and subjective judgments of individuals.

201. Recent investigations have shown that the external examination is neither so objective nor so reliable as was once believed*, but it does do a kind of rough justice to candidates from many schools and different areas. Can a comparable fairness of assessment be secured without it? We believe that it can and that it is now possible to be rid of the incubus of external examinations and to substitute a system which will serve the same good purpose without most of the evil effects.

(a) The Value of Teachers' Estimates

202. If the external examination is abolished, however, pupils must be passed or failed on the basis of estimates supplied by the schools, and the question has to be faced whether decisions thus reached would be as fair and reliable as those arrived at mainly on the evidence of an external examination.

203. The results of research and the experience of examining bodies show that teachers are, as a rule, very accurate in placing their pupils in an order of

*See paragraph 225 and footnote.

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merit; indeed we are satisfied that in this respect the teacher's grading is more trustworthy than any other.

204. But, if there is to be a uniform pass standard throughout the country, the marks submitted by different schools must be compared and equated, and it is here that difficulty arises, since teachers' estimates vary (1) in standard, and (2) in the spread of the marks - a twofold defect which, though in no way reflecting on the teachers' competence, does invalidate the raw marks as a basis for the award of a national certificate.

205. The following diagram (A) shows how the same class might be graded by two teachers, the one a lenient, the other a stiff marker. It cannot be said that one standard is right and the other wrong - both are arbitrary - and the difference of 15 per cent between them is no fanciful exaggeration but might easily be exceeded in actual practice. How impossible it would be to award certificates on such data is evident from the fact that, with a pass mark of 60, seventeen pupils would be passed by the first teacher and only three by the second.

DIAGRAM A

| PERCENTAGE MARK | PUPILS AS MARKED BY FIRST TEACHER | SAME PUPILS AS MARKED BY SECOND TEACHER. |
|-----------------|-----------------------------------|--|
| 95 - 100 | | |
| 90 - 94 | | |
| 85 - 89 | | |
| 80 - 84 | ● | |
| 75 - 79 | ● ● | |
| 70 - 74 | ● ● ● | |
| 65 - 69 | ● ● ● ● ● | ● |
| 60 - 64 | ● ● ● ● ● ● | ● ● <u>PASS MARK.</u> |
| 55 - 59 | ● ● ● ● ● ● | ● ● ● |
| 50 - 54 | ● ● ● ● ● | ● ● ● ● ● |
| 45 - 49 | ● ● ● | ● ● ● ● ● ● |
| 40 - 44 | ● ● | ● ● ● ● ● ● |
| 35 - 39 | ● | ● ● ● ● ● |
| 30 - 34 | | ● ● ● |
| 25 - 29 | | ● ● |
| 20 - 24 | | ● |
| 15 - 19 | | |
| 10 - 14 | | |
| 5 - 9 | | |
| 0 - 4 | | |

206. Similarly, teachers' estimates vary in the "spread" of the marks awarded, as is shown in Diagram B. Here the average marks given by the two teachers are the same, but the marks of the first are more widely spread than those of the second, and this affects the fate of the candidates. If the

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passmark were fixed at the common average, both teachers would pass the same number of pupils; but, if the pass mark were 60 per cent, the first teacher would pass six pupils, the second only one.

DIAGRAM B

| PERCENTAGE MARK. | PUPILS AS MARKED BY FIRST TEACHER. | SAME PUPILS AS MARKED BY SECOND TEACHER. |
|------------------|------------------------------------|--|
| 95 - 100 | | |
| 90 - 94 | | |
| 85 - 89 | | |
| 80 - 84 | | |
| 75 - 79 | | |
| 70 - 74 | ● | |
| 65 - 69 | ● ● | |
| 60 - 64 | ● ● ● | ● PASS MARK. |
| 55 - 59 | ● ● ● ● ● ● | ● ● ● ● ● ● ● ● |
| 50 - 54 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● |
| 45 - 49 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 40 - 44 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 35 - 39 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 30 - 34 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 25 - 29 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 20 - 24 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 15 - 19 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 10 - 14 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 5 - 9 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |
| 0 - 4 | ● ● ● ● ● ● ● ● | ● ● ● ● ● ● ● ● ● ● ● ● ● ● |

(b) Need to Secure Uniformity

207. It follows from these examples that, before we could recommend the replacement of the present external examination by a method of award based on school estimates, we should have to be satisfied that there was some procedure whereby the teachers' marks could be made comparable both in regard to standard and to spread.

208. Various means have been proposed for securing the necessary uniformity of standard in teachers' estimates, One method invites teachers to base the allocation of their marks on the normal distribution curve, which means in effect that all teachers would place roughly the same proportion of pupils within a certain percentage range, say 50-60. Such a procedure is unsound, however, in that it ignores real differences between school and school both in the level of pupil ability and in the quality of the teaching.

209. Again, it has been suggested that much greater uniformity of standard might result from the regular use by teachers of standardised attainment tests, which, with their "norms" or average scores for pupils of a given age, would provide a scale on which teachers could place the marks of the pupils in their

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classes. But there are many difficulties in the way. The supply of carefully standardised tests is limited, and most of the available material has been prepared to suit American conditions. Moreover, to obtain reliable results, all teachers would need to use the same test and under the same conditions, for it has been found that, even where carefully standardised, different tests yield somewhat different results.

210. We are convinced that the decision as to "pass" and "fail" could not safely be left to the judgment of individual teachers, even when

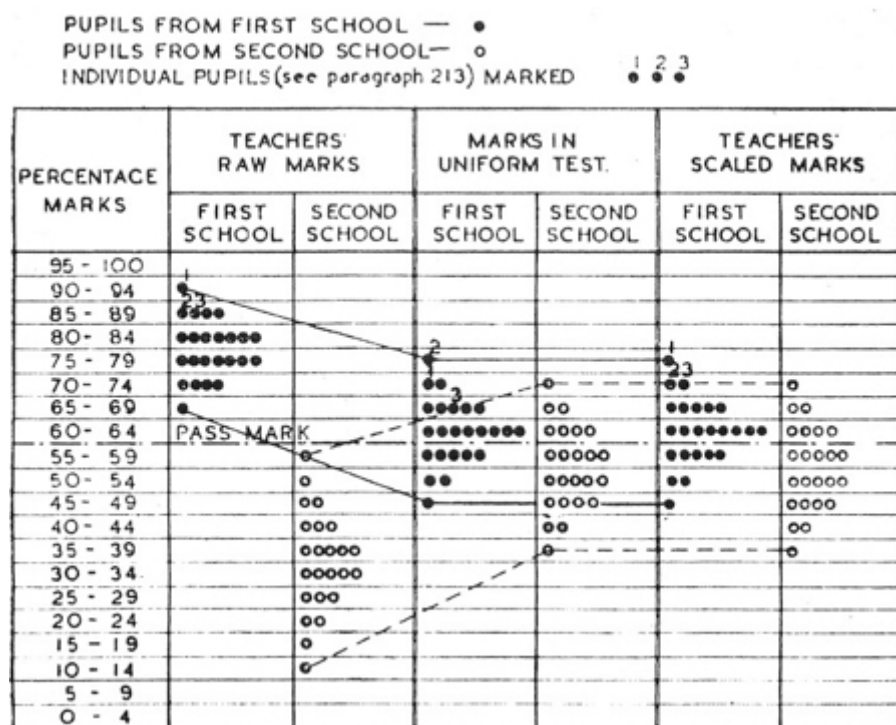
guided by cumulative record cards, distributions of scores and the results of occasional applications of published attainment tests; nor could the dividing line be properly determined by the subjective verdicts of a number of different inspectors, however shrewd and experienced.

(c) The Procedure Recommended

211. There remains only one other way of dealing with the problem, and it is one that has been followed with success at the stage of transfer from primary to secondary education. It consists in using an exact statistical method to transform teachers' estimates so that the average mark and the spread of the marks in a class become the same as the average mark and the spread of the marks made by the same pupils in a uniform external test in the subject in question. When this is done, the teachers' estimates become comparable between school and school and, in particular, the standard of attainment represented by the pass mark is the same in all schools.

212. The following diagram (C) illustrates the working of this scaling procedure for classes from two schools.

DIAGRAM C



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213. The teacher's raw marks for the first school range from 65 per cent to 94 per cent with an average of 79.5 per cent. The marks scored by the pupils from this school on the uniform test, which are shown in the second column, are somewhat more widely spread, and their average is only 62 per cent. The order of merit on the uniform test is also different from that of the teacher's marks: as indicated on the diagram, the first three pupils in the teacher's list take second, first and sixth places respectively in the uniform test. *The teacher's scaled marks for this school, which are shown in the third column, have the*

same spread and average as the marks scored by the pupils in the uniform test, but the teacher's order of merit is restored.

214. The marks of the pupils from the second school rise in the scaling, and they become less widely spread. If the teacher's raw marks had been used for certificate purposes, all the pupils from the first school would have passed, and all the pupils from the second school would have failed. After scaling, the numbers passing from the two schools would be 16 and 7 respectively.

(d) Advantages of Scaling Procedure

215. This procedure, it will be noted, does involve a uniform external test and a separate process of scaling in each subject. But it is in important respects fundamentally different from the existing type of examination, and we give reasons for believing that it escapes most of the evils against which we have inveighed.

(1) The external test no longer settles the fate of the individual pupil, its sole function being to make possible the scaling of the teachers' marks. The realisation of this should obviate most of the strain, anxiety and cramming which are among the worst evils of the present system.

(2) The external test need not be nearly so long as the familiar examination. Papers of about 45 minutes would probably suffice, and further research may show that even shorter tests than that would still be effective for their limited purpose.

(3) As the test would be on the "minimum essentials" of a secondary course, dealing only with the facts, principles, skills and reasoning processes which would have a place in every sensible syllabus, it would not restrict the freedom of the teacher to handle his subject as he thinks best.

(4) The tests would in the main use the "short answer" questions which have been employed with much success in standardised attainment tests and are now regarded as of assured soundness and reliability. These short-answer questions can be so framed as to assess not merely factual knowledge but also thought and reasoning. We assume, of course, that if our proposals were adopted, there would be immediate intensive research into the form, content and length of the tests to be used.

(5) The correction of this type of test involves little time or skill. As the answer is either right or wrong, no subjective valuation enters, and the new examination has the great advantage over the old that there is no variability in the marking.

216. On the results of the uniform test applied to the whole group of candidates from a school, the teachers' estimates are scaled by a relatively simple procedure, a full description of which will be found in Chapter V of

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"Selection for Secondary Education", published in 1942 by the University of London Press for the Scottish Council for Research in Education.*

217. After scaling, the teachers' marks are comparable from school to school both in standard of marking and in spread of marks, *but the order of merit for any school is the teacher's order and not that of the external test.*

(e) Fixing the Pass Mark

218. There remains the fixing of the pass mark. One way of doing this is to have it determined by a group of inspectors or examiners after consideration of (1) the results of the external test and (2) the teachers' marks and class tests, for a number of representative classes.

219. There are, however, more technical methods that are preferable, and we advise that the pass mark be fixed at a certain multiple (to be determined by experiment) of the standard deviation of the marks on the external test from the mean of the marks on the external test. This ensures that the standard for a pass is approximately the same in all subjects.

(f) Objections to the Scaling Procedure

220. We are not unaware of certain criticisms to which the procedure we have outlined is exposed, nor would we belittle their importance.

221. The most serious perhaps is that the normal method of scaling breaks down when the number of candidates from a school is very small. From this difficulty no substitute for the external examination is free. With the raising of the school age, however, the numbers taking School Certificate at sixteen[†] would be considerably higher than those presently attempting the Senior Leaving Certificate; and, if it were made obligatory to present all the pupils in the Certificate year - a practice desirable on other grounds also - that would still further reduce the area of uncertainty. Moreover, certain modified scaling devices have considerable value even with small numbers, and we think that in the case of very small groups H.M. Inspector could make a reliable adjustment of school estimates on the basis of (1) teachers' marks, (2) the marks scored in the external test and (3) the class tests of the pupils. It should be kept in mind, too, that, as the Certificate would be awarded on a "subject" and not a "group" basis,[‡] it would not be necessary to fix an exact mark for the individual pupil but merely to decide whether he passed, or failed in the subject in question.

222. It may be argued that the teacher has still an incentive to cram his pupils, since their performance in the external test does affect the issue in the sense that by doing well they raise the teacher's marks in the scaling and thereby increase the number of passes in the class. While that is so, it is reasonable to hope that, with the fate of the individual no longer directly and decisively dependent on the external test, pupils would in general be much freer from strain and less responsive to the crammer.

* The scaling is effected by means of the equation $T_s = M_s + \frac{\delta_s}{\delta_t} (T - M_t)$ where

T = Teacher's unscaled mark ;

T_s = Teacher's scaled mark ;

M_t = Mean of teacher's unscaled marks ;

M_s = Mean of marks in external test ;

δ_t = Standard Deviation of marks in external tests ;

δ_s = Standard Deviation of teacher's unscaled marks.

† Refer forward to paragraph 232.

‡ Refer forward to paragraph 243.

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223. Lastly, since the external test is restricted to minimum essentials, the teacher may be tempted to confine his teaching unduly and not to use the greater freedom which the new system is designed to give. It would be foolish to deny this possibility; but we are satisfied that, because of the very great variety that is possible in the form and content of short-answer questions, cramming would be less likely and less effective under the system we propose than under the present one.

224. In recommending that the system of scaling teachers' estimates be given a fair trial, we are content to claim that it is practicable, that its adoption would materially reduce the evils of external examination and that the results would be at least as reliable as those of the present system.

(4) FALLIBILITY OF EXTERNAL EXAMINATIONS

225. The last point is important. What we are proposing has to stand comparison not with a *perfect* system but with one whose fallibility has been startlingly and repeatedly demonstrated in many countries. As evidence of the unreliability of the existing system we quote this extract from one of the volumes published by the English Committee of the International Institute Examinations Enquiry*:

Fifteen scripts were selected which had been awarded exactly the same "middling" mark by the School Certificate authority concerned, and these scripts were marked in turn and independently by 15 examiners, who were asked to assign to them both marks and awards of Failure, Pass and Credit. After an interval which varied with the different examiners, but was not less than twelve nor more than nineteen months in any instance, the same scripts, after being renumbered, were marked again by 14 out of the 15 original examiners (one examiner being unable to serve again). The 14 examiners assured us that they had kept no record of their previous work and this was indeed obvious from the results.

Whereas the scripts had been all allotted the same moderate mark by the original examining body, they were allotted by the 15 examiners on the first occasion 43 different marks out of a maximum of 96, varying from 21 to 70. On the second occasion the total number of the different marks was 44, and the marks varied from 16 to 71. There is no space here to analyse the differences of

the marks allotted by the various examiners to the same candidates. In one case the difference was 30 marks out of the maximum of 96.

Perhaps the most striking feature of the investigation is this: on each occasion the examiners awarded not only numerical marks, but the verdict of Failure, Pass or Credit. ... It was found that in 92 cases out of the 210 the individual examiners gave a different verdict on the second occasion from the verdict awarded on the first.

226. Serious as is the degree of discrepancy in the marking of scripts disclosed in the above quotation, it is only one element in the total unreliability of ordinary examinations. To it must be added the unreliability that arises from (1) the variation in the standard of a pupil's performance at different

*Hartog and Rhodes - "An Examination of Examinations" - Macmillan. 1935. See pages 14 and 15. The summary of the French inquiry on pages 78-81 is equally illuminating.

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times, and (2) the suitability or unsuitability of the question paper to individual pupils. It has been estimated* that the unreliability arising from the first of these sources is about as great as that due to the variability in the marks awarded by different examiners to the same scripts.

(5) EXTERNAL EXAMINATIONS AND THE UNIVERSITIES

227. In all that we have written so far, we have had in mind the general body of secondary school pupils, not the minority who are to proceed to higher studies in universities and colleges. The latter constitute a special case; and, were the impact of the external examination limited to them, we should not be unduly disturbed about its effects. Their gifts and interests are such that normally the passing of examinations does not involve for them excessive strain or distortion of their work: they are entering freely on a long course which is punctuated with such tests; and lastly, the universities must, within all reasonable limits, have the right to fix their own entrance requirements and the means of ascertaining that they are met. Nevertheless, we should not be surprised (nor ill-pleased) if ere long the universities themselves were to become infected with doubts whether they are really gaining by their insistence on the present type of entrance examination. Commoner than the charge that the products of the schools are ill-informed is the complaint that all too often they lack zest and intellectual initiative, and it may well be that this is the stiff price that has to be paid for a paper guarantee that each and everyone is on entrance scholastically presentable.

228. Some very interesting evidence on the value of the conventional type of-examination has come out of America in recent years; and, while allowance must be made for the different standards and conditions of the two countries, we give as being both significant and encouraging the conclusions reached in the last of the five reports on the Eight-Year Study (1933-1941), conducted by the Commission on the Relation of School and College of the Progressive Education

Association† - "The purpose of this Study was to find out whether the traditional college entrance requirements and examinations made any difference to success in college, and what secondary schools would do if these requirements and examinations were abandoned. To this end about three hundred colleges and universities agreed to accept or reject the graduates of thirty secondary schools on the basis of records of their development submitted by the schools, without reference to the usual requirements and examinations. A study of their success in college, broadly defined, was made by a staff of college personnel officers. In twenty-five representative colleges which enrolled the majority of the graduates of the Thirty Schools, each graduate was matched with an equally good student of the same age, sex, and race, who came from the same type of home and community, who was pursuing the same field of studies in college, and who had met the customary entrance requirements. Graduates of the Thirty Schools did as well as the comparison group in every measure of scholastic competence, and in many aspects of development which are more important than marks, they did better. The further a school departed from the traditional college preparatory program, the better was the record of its graduates. Thus it was proved that the traditional college entrance requirements and examinations are no longer necessary to insure adequate preparation for college."

*"Selection for Secondary Education", page 16.

†Thirty Schools Tell Their Story: Introduction, p. XVII, Harper and Brothers, New York and London, 1942.

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3. The Scottish Education Department as Examiner

229. We go on now to consider more particularly the existing system of examinations and certificates in Scotland; and, since our recommendations involve major changes, it is the more incumbent on us to acknowledge the care and wisdom with which the Scottish Education Department has done its work as an examiner.

230. That the Leaving Certificate Examination admirably fulfilled its shaping and steadying function during the formative period of secondary education in Scotland none will question. It has made an immense difference for good that our premier examination has been controlled throughout, not by some outside body, but by the Government Department directly responsible for Scottish education; and that the final determination of papers, the revision of scripts and the treatment of border-line cases have always lain with men whose duties kept them constantly in touch with the work of the schools. The Department has very properly attached great weight to the school's considered estimates of its own pupils, and, where these conflicted with the verdict of the written papers, further tests have always been given by the visiting inspector and all the available evidence has been carefully weighed. Thus the chanciness of the external examination has been materially reduced.

231. In two important respects, the Department has given the schools a most enlightened lead:-

(1) It has encouraged the widening of the curriculum and the development of practical subjects by bringing the latter within the scheme of the Leaving Certificate Examination and by steadily reducing the number of "compulsions". Since 1937 the only obligatory subjects have been English, Arithmetic and either History or Geography, and it is to be hoped the years ahead will see an increasing proportion of candidates breaking away from the still all too dominant traditional curriculum.

(2) It has wisely adjusted its Leaving Certificate requirements to changing conditions in home and school, and the minimum presentation is now only two Highers and three Lowers. Yet in a recent normal year two-thirds of all the candidates went beyond this sensible minimum, offering either additional subjects, or additional subjects on the Higher Grade, or both. As the slightly heavier requirements of the Scottish Universities Entrance Board or the Carnegie Trust could account for only a fraction of this excess of zeal, here is evidence of a most regrettable willingness on the part of schools to risk overpressure or to sacrifice non-examinable subjects in the pursuit of mere examination success.

4. Examinations and Certificates

232. It may conduce to clearness if we set down in summary form our major recommendations in this section of our remit:

(1) That there be no external examination for boys and girls leaving at fifteen.

(2) That each pupil leaving school, either at 15 or without securing the School Certificate referred to in (3), be supplied with a record giving particulars of his work in the secondary school.

(3) (a) That a School Certificate be instituted, to be taken at the end of the IVth Year of secondary school. (This involves two examinations a year, since junior secondary schools have two commencing dates.)

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(b) That this certificate be awarded on the results of internal examination conducted by the teachers in each school and a process of standardisation carried out by the Scottish Education Department.*

(c) That this School Certificate be not awarded on a group basis, but show the subjects included in the course and those in which a pass has been obtained.

(4) That a Higher School Certificate, also on a subject basis, be instituted, to mark the completion of various types of VIth Form course.

(5) That the external examination for the Higher School Certificate be conducted by the Scottish Education Department.

(6) That on the institution of the School Certificate and the Higher School Certificate the award of the Senior Leaving Certificate be discontinued.

5. No External Examination for Pupils Leaving at Fifteen

233. Any attempt to institute for pupils of fifteen a certificate based on a national, or indeed on any form of external, test would, in our opinion, be calamitous in its effects on the short courses and foredoomed to failure. It would arrest the healthy movement from the bookish and verbal to the practical and realistic just where that change is most necessary, and would tend to a sterile uniformity instead of the free experiment and spirit of venture we so greatly desire. There is ample evidence that the fruitful development of the Senior Schools in England owes much to their standing clear of external examinations, and we must secure a like freedom for the corresponding types of Scottish children. And an examination would fail, in the sense that only a small proportion of the pupils concerned would reach the standard. This is a safe deduction from the fact that so many of those who stayed on voluntarily to fifteen (usually the better and abler pupils in the junior secondary schools) could not meet even the modest demands of the former Day School Certificate (Higher). A good school can do so much for ordinary children in the years from twelve to fifteen that it were foolish to repine because it cannot bring them in the mass up to the standard of a formal written examination.

234. Fortunately, what is impossible is also unnecessary, for the children we speak of are not faced with any demand for a certificate on a national standard. They are locally employed, and, if their school stands well with its community, the employer cares little, we are told, about a paper certificate, compared with the direct guidance the schoolmaster can give as to the aptitudes, interests and personal qualities of the boy or girl in question. Obviously what is required here is a well-framed and reasonably detailed record of work; and, to ensure the best form of record or report, we recommend consultation

*We have noted with interest that in a circular recently issued by the Ministry of Education on Examinations in Secondary Schools, attention is called to the view of the Norwood Committee (see footnote to paragraph 177) that "the secondary schools will be better able to study the real and varied need of individual pupils and to develop their potentialities to the fullest and widest possible extent, if they are free from any form of external examination for pupils under the age of 17 or 18", and a suggestion is put forward that the external First Examination should be discontinued as soon as circumstances permit and replaced by "an internal examination with some form of external assessment."

If Scotland and England can move together in this matter the methods and the necessary safeguards of internal examination - in which the Scottish Education Department has already gained valuable experience - will be the more quickly perfected and the lay world will the more readily gain confidence in the new School Certificate.

between the Department, the education authorities and the commercial and industrial interests concerned. The record should be supplied to all children leaving at fifteen, and to such older children as left without securing the School Certificate.

6. School Certificate at Sixteen

235. The reasons that have led us to favour a School Certificate at sixteen are both educational and practical. Throughout the English-speaking world there is now agreement that sixteen is the age at which general education should end, and within a reasonable period the full-time education of all Scottish children will be extended, to that age. Sixteen is a kind of educational divide: till then, with due allowance for individual differences, the schooling remains one broad stream; thereafter its parcelled state reflects the developed differences in aptitude, interest and vocational needs of later adolescence .

. If there is to be a general assessment of the work of the school, here surely is the natural point at which to make it. To prolong for a further year the period during which ordinary youngsters must continue to advance on a broad front is to add considerably to the casualty list, and if the less ambitious certificate at sixteen were to mean fewer failures, it is for more than sentimental reasons that we should set that to its credit. Surely only custom has blinded us to the fact that an examination which, like the Senior Leaving Certificate, is almost equated with university entrance requirements constitutes a wholly inappropriate and needlessly severe test to mark the satisfactory close of general education? For the full extent of failure in the Senior Leaving Certificate is ill-conveyed by the percentage of passes to presentations. There remain those who are not presented, those who never reach a Leaving Certificate class, and those others who, anticipating fate, are wise enough to slip out early but unlucky enough to have to leave with no official recognition of their considerable progress in secondary education.

236. Without entering here into detailed discussion of VIth Form work, we would add that the proposed change to a School Certificate seems to us as advantageous to the few as to the many, since it would give them at the post-certificate stage the stretching-room and time to look about them which cannot be had in the one brief year between the Senior Leaving Certificate and the university.

237. We have recommended that short-course schools should be encouraged to develop "tops", and we believe that, pending the raising of the age to 16, the institution of a School Certificate would do much to promote continued attendance through the IVth Year, thus closing the gap between school and apprenticeship.

238. But, apart from apprenticeship to the skilled trades, there is a great range of clerical, commercial and semi-professional work for which, in the opinion of employer and school alike, sixteen is on the whole the best commencing age. In England young people are certificated and ready for such employment at about sixteen: in Scotland at present they have the unsatisfactory choice of a truncated course and no certificate or an additional year which too often gives no adequate return. The banks, for instance; have long chafed at our Scottish arrangements, feeling that the full Senior Leaving Certificate

programme is unnecessarily high for their purpose and involves a needlessly late start.

239. Moreover, it should be noted that the great majority of the professional associations themselves are content with the School Certificate in

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England, whereas in Scotland they are forced to demand the Senior Leaving Certificate, because there is nothing else. Scottish pupils are thus doubly disadvantaged - by a year's delay and by the greater risk of ultimate failure in the more stringent Scottish examination. Of necessity, Civil Service age regulations are determined by the English educational set-up, with the result that neither the Clerical Class Examination nor that for the Executive Group chimes in with Scottish arrangements.

240. Convinced that the change to a School Certificate at sixteen is educationally desirable, we find in the difficulties and anomalies of the present position strong additional support for our recommendation.

241. Without attempting to discuss in detail what should be the standard of the proposed School Certificate, we submit that it must take account of present-day ways of life and adult working hours. It must not be pitched so high that young people of normal ability can reach it only by a docile surrender of the whole evening to book studies. That is to ask too much. There are other voices besides the pedagogue's to which youth should listen, and the demands of formal education should not be so exacting as to leave no room for family life or for the cultivation of individual interests during the years of adolescence.

242. Our recommendation that the new Certificate be awarded on a subject not a group basis constitutes a break with the Scottish practice of nearly half a century, and we wish to define the proposal more closely. We are not suggesting that the curriculum leading up to the School Certificate should be determined by the immature notions of the pupil or the predilections of the headmaster. On the contrary, we hold that the Scottish Education Department must continue to lay down the broad lines on which secondary education is to proceed, ensuring a proper balance of studies and due attention to those subjects which enlightened opinion deems essential. Further, we recommend that for the School Certificate each candidate should be presented in an approved group of subjects, though such a group would not necessarily be co-extensive with his whole programme of studies from twelve to sixteen.

243. But we hold that in these two provisions is ample safeguard against one-sidedness and that to carry the "group" principle into the actual award of the Certificate is to deal very unequally with different types of ability. Under the regulations governing the award of the Senior Leaving Certificate, the boy who secures two 51's and three 50's is a success and duly certificated, whereas another might have very good passes in, say, Higher Mathematics and Higher Science, and yet because of definite failure elsewhere he would forfeit the

group and so leave school with no certificate whatever to testify to his high attainments in important fields of study.* This seems to us indefensible, and we consider that the simplest and most equitable way is to issue a certificate to every candidate who secures one or more passes. The front of the certificate would carry a statement of the subjects included in the candidate's course, on the back would be entered the subjects in which he had passed. Such a certificate will give the candidate credit for what he has achieved, while at the same time it will tell the outside world what it is entitled to know - the relationship between what he attempted and what he has passed.

*We understand, however, that the Department are prepared to furnish information confidentially to prospective employers and others as to the performance of any candidate for the certificate.

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244. We briefly record our opinion on two further points in regard to the proposed School Certificate:

- (1) There should be passes on one grade only.
- (2) The award should be a simple "Pass", with no "Credits" or other grades of distinction.

245. Until the extreme competitive spirit is exorcised from Scottish education, the award of "Credits" or "Distinctions" would inevitably lead to over-pressure and undesirable new forms of inter-school rivalry. We do not wish this or any certificate to bestride the curriculum like a colossus; and, with the experience of England before us, we dread a situation in which the existence of "Credits" might cause the simple "Pass" to be regarded as faintly discreditable. Admittedly, a wide range of achievement will remain undiscriminated; but, if there are occasions when it is legitimate to know more closely the quality of a pupil's performance, it is better that the school should supply the necessary information. What we have said in this paragraph presupposes a "Pass" standard high enough to ensure steady work and to merit public esteem.

7. Higher School Certificate and VIth Form Work

246. Our proposals for the Higher School Certificate spring from the conviction that VIth Form work should be marked by great freedom and variety. The day is past when we can think of it simply as the stage at which a bookish few are preparing for university bursaries. Such work is important and will always have its place, but we must provide for quite other needs and interests. Some will stay two years or more, some only one. Many will pursue more intensively some of the subjects of the School Certificate course: others will desire to break new ground. We should hope to see a big expansion of social studies at this stage, for it is in these later adolescent years that work on history, geography and the elements of political and economic science begins to be truly rewarding. Similarly, we believe that much of the best work in foreign languages will fall within the VIth Form period, the Classical pupil turning to Russian, Spanish or Italian, a Modern here and there being even moved to sample Classical Greek. Nor need the work be all equally directed towards examination ends. A prospective accountant, for example, might well combine intensive preparation for a Higher School Certificate pass in Mathematics with

quite general study, some of which might be tested only at a subsidiary level, some not at all.

247. It seems to us that only a very flexible examination instrument will meet the varied requirements of such VIth Form work. Hence our recommendation that the candidate be left quite free as to the number and grouping of subjects he offers, and that there be a Subsidiary Grade and a Principal Grade, representing one year's and two years' work respectively beyond School Certificate level. The Subsidiary Grade would thus correspond broadly to the Higher Grade of the Scottish Senior Leaving Certificate, the Principal Grade to the existing standard of the English Higher Certificate. We recommend that in the Higher School Certificate, as in the Senior Leaving Certificate, weight should be given to the school's estimate of its candidates. Even at the VIth Form stage, the curriculum should, in our view, still be subject to the general approval of the Scottish Education Department, in order to ensure two essential conditions - (1) that every pupil continue till the end of the school

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course the systematic study of the understanding and use of English, and (2) that no course be unduly narrow or over-specialised. In regard to (2), however, we are satisfied that a VIth Form course can be both wide and liberal without necessarily conforming to a stern doctrine of "compulsions".

8. The Control of the School and Higher School Certificate Examinations

248. We have no doubt whatever that these examinations should be the direct responsibility of the Scottish Education Department: that follows from all we have said on the subject. The Department has unrivalled experience in this field and stands in a unique relationship to the schools. In these two facts are our best guarantee that the control of the internal examination for the School Certificate and the conduct of the Higher School Certificate will be guided by expert knowledge and sympathetic understanding.

249. We know that the Department has long had regular consultation with the Educational Institute of Scotland, and the Scottish Universities Entrance Board over the Leaving Certificate, but we think it would be advantageous to the Department itself and would meet the reasonable claims of interested parties if a more permanent and fully representative advisory machinery were set up in connection with the School and Higher School Certificate Examinations. Accordingly, we recommend:

- (1) That an Advisory Examination Council be set up by the Secretary of State, with an independent chairman and representatives of the teaching profession, the education authorities, the universities, the central institutions, the Scottish Council of Institutes of Education,* the chambers of commerce, the trade unions, the Scottish Council for Research in Education, and the professions; that the members be nominated by the Secretary of State, after consultation with the interested parties: and that the

largest single representation, amounting to not less than one-third of the whole membership, be that of the teaching profession.

(2) That the Scottish Education Department nominate for each subject of examination a panel of practising teachers of that subject.

250. The Council would be concerned with the larger questions of policy - the scope of the examinations and the subjects to be included, the general nature and standard of the tests and the degree to which the Certificates were fulfilling their purpose.

251. The function of the panels would be to give the Department the kind of guidance and criticism on the details of the tests, the form and suitability of questions, and the times to be allowed, which can come only from men and women regularly engaged in the teaching of the subjects.

252. So long as external national examinations continue, knowledge of the contents of the actual papers to be set in any year should be strictly confined, as heretofore, to the Department's officers and examiners. Whether it is possible to make use of practising teachers and headmasters as examiners is a difficult question on which we do not venture an opinion. We suggest, however, that guidance might be sought from the experience of the examining boards in England.

*See Report on Training of Teachers, Cmd. 6723 Chapter XXV.

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9. The New Certificates and Entrance to the University

253. We realise that the proposed School Certificate could not stand related to university entrance requirements as the Leaving Certificate has long done. So far from deploring this, we welcome it, for we are convinced that the effects of the existing arrangements on the Leaving Certificate and through it on Scottish secondary education have been bad. What we may reasonably ask of the many at the close of general education and what we may expect of the relatively few who are to embark on a long course of higher studies are not merely different but so different that no single examination can by any magic be made to do justice to both assessments. Experience on both sides of the Border has shown that the surest way to distort a School Certificate from its proper function is to peg it to university matriculation requirements. The breaking of this unnatural association gives us a chance to start afresh and to attune our School Certificate demands to the realities of the present and not to conditions that have long since passed away. Accordingly, we say plainly that even if the discontinuance of the Senior Leaving Certificate resulted in all university entrants having to take an examination set by the universities themselves, we should regard that as a moderate price to pay for the greater freedom of the schools.

254. It must not be assumed, however, that the universities would necessarily take this course. We have not discussed the matter with the universities or their Entrance Board, but it is common knowledge that from their end also the existing practice is not free from

difficulties and that the provision of Ordinance LXX that there must be one set of entrance regulations applicable to all faculties becomes increasingly hard to defend. Indeed, there are many who have come to think that instead the universities should make two quite distinct demands on their entrants (1) as to their general education, and (2) as to their progress in those special studies germane to what they propose to do in the university itself. Now it may be that, without seeking in any way to limit the freedom of action of the Scottish Education Department and the schools, the universities might see in the possession of certain School Certificate passes reasonable evidence of general education and in the passing of certain subjects at the Higher School Certificate examination sufficient guarantee that the student was qualified to enter on the university studies of his choice.

255. We must not go beyond this very general expression of opinion; but, if the terms of our remit preclude us from pursuing this subject further, they likewise relieve us of the obligation to let our decision on a major educational issue be influenced by its possible effects on university entrance requirements.

10. Objections to the Proposed Changes

256. It remains to consider two possible objections to our proposals.

(1) It may be argued that with the substitution of a School Certificate for the Senior Leaving Certificate, most of the pupils who presently remain till seventeen will leave at sixteen. Opinion here must be largely conjectural; but such a sweeping assumption is not borne out by the experience of England, where post-School Certificate work is by no means confined to those preparing for Higher Certificate and scholarships. It seems probable that the proportion staying on would depend largely on the provision of generous maintenance grants at the post-School Certificate stage, and on the variety and attractiveness of VIth Form work. Moreover, against some diminution of roll in the

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Vth Year must be set the almost certain increase in the number of those who would remain till sixteen, were a national certificate obtainable at that age. Lastly, we must challenge the tacit assumption that the system is best which keeps the largest number of boys and girls at school till seventeen or eighteen striving to secure a certificate, There. are many who have reached saturation point considerably earlier, and every headmaster knows that the continued attendance of such pupils yields doubtful profit to themselves and to the school.

(2) Some may fear that our proposals would lead to undue specialisation at the top of the school. Now, it is one of our reasons for recommending these changes that we think they would promote a moderate and desirable degree of VIth Form specialism, but why it should

become excessive we are at a loss to see. Admittedly some English schools have gone to extremes, but there is general agreement that blame for this rests not on the School and Higher Certificate system as such but on the Oxford and Cambridge scholarship requirements, with their demand for an extremely high standard within a narrow field of studies. No such harmful influence would be exerted by the bursary competitions of the Scottish universities, which have remained fairly wide in scope and reasonable in standard; and we believe the Scottish Education Department can be trusted to safeguard the Scottish tradition against the evils of premature specialisation.

257. Throughout our consideration of the examination problem we have been struck by the failure of criticism, damaging and oft-repeated, to translate itself into action, and in the end we felt no doubt that the situation called for more than minor changes. While, therefore, we do not regard our proposals as either final or devoid of difficulty; we hope that enlightened opinion will approve of recommendations which leave the general life, of the secondary school free from the external examination as we have known it, and which even at the VIth Form stage allow the individual pupil to take anything from a sip to a draught from the examination tankard - or even to be a total abstainer.

CHAPTER IX

THE CURRICULUM

1. Introductory

258. It is not our intention to discuss exhaustively every subject in the secondary curriculum, still less to frame detailed syllabuses. Not only would such an enterprise outrun our competence: it would be alien to the whole spirit of this Report. For it is our conviction that the greatest need of Scottish education is for initiative, variety, experiment, and that many things (and these the most vital) can rightly be determined only within that living relationship of teacher and taught which the whole machinery of schools, administration and councils exists solely to promote. But there have emerged from our deliberations and from the great mass of evidence we have taken certain conclusions about the general content of secondary education and some suggestions for its improvement which we believe to be of value. These form the substance of the present chapter.

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259. We think it right to say that we have not sought a nice proportion between the length of our observations on the several "subjects" and the weight of these subjects in the curriculum: rather have we been guided by the nature and extent of our evidence.

260. It is important that this part of the Report in particular should be read in close conjunction with our Report on Primary Education. The passage from primary to secondary school is an administrative change, not a break in the continuous process of education. Every

element in the "core" of post-primary education has its counter-part in the work of the earlier years; and, since the essential problems belong to both stages, much that was said in our Report on Primary Education about the value and content of the "subjects" is as relevant here as there, and need not be repeated.

261. While we have been conscious throughout how wide is the intelligence range in a secondary school, we have not felt it necessary or indeed desirable to docket the children into neat categories at every turn and to offer a separate prescription for each. It is possible to see in all secondary education from twelve to sixteen a unity which is not illusory or merely sentimental but real; for underlying every difference of class or taste or talent is an identity of childish and adolescent need and response which is best met by the formulation of a curriculum broadly uniform in content and purpose. If individual and group work are given the place we hope, it will not be impossibly difficult to vary the treatment of a general syllabus in depth and fullness, so as to take account of those differences in ability which nature has decreed and man cannot alter.

262. It is, however, misleading and at times almost meaningless to make statements as if they were equally applicable to pupils whose intelligence quotients are 90 or 105 or 120. Accordingly, we have found it convenient to use on occasions the familiar rating scale divided into five equal intervals of ability as follows:

| RATING SCALE | A | B | C | D | E |
|-----------------------------|-----------------|---------|--------|-------|-----------------|
| Percentage of Age Group ... | 7 | 24 | 38 | 24 | 7 |
| Corresponding I.Q. Range | 122 and over | 121-108 | 107-93 | 92-78 | 77 and under |

263. We have tried to make an approach to the curriculum more practical by bringing the general question why we teach this or that into sharper focus in the form - why do we teach this subject to these particular pupils at this particular stage? In some cases, our answers to that question are explicit, in others, they are implied in the considerable changes we propose in the content and emphasis of the teaching.

264. We trust no one will fail to sense the very high value we attach to the work of the VIth Form, merely because our treatment of the 16-18 stage is much less detailed than that of the earlier years. One of our main reasons for proposing a major change in the examination system is to give the VIth Form a spaciousness it has never had in Scotland; and, as we said in an earlier chapter, we hope that it will be much wider and more varied than just preparation for the winning of competitive bursaries.

265. It is important that the different subjects should have equal encouragement: we do not favour any classical or mathematical monopoly; as little do we wish to see these older disciplines forsaken, and the VIth Form given over almost wholly to scientific or social studies.

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266. Two things are necessary to the full success of this advanced work in the schools. The education authorities must be ungrudging in

the provision of staff; and the older boys and girls themselves must be prepared to work hard. We stress this last, because, while we condemn over-pressure at any stage of school life, we think that real singleness of purpose can rightly be expected of the few to whom nature has given the ability and society the chance to be busy with knowledge at an age when their fellows are busy with livelihood.

267. What we have not found it necessary to undertake is a detailed discussion of teaching methods and subject contents in the VIth Form, and the reason is plain. Western society has been for centuries at the job of educating that intellectual elite who will long continue to provide the bulk of our whole-time VIth Form pupils, and it would be presumptuous for anyone to imagine that the general lines of such education have not long since been soundly laid.

268. A day may come when, in a profoundly changed society, full-time education up to 18 will be extended to a much larger number of young people, varying far more widely in type and aptitude. If it does, then VIth Form work will, no doubt, invite more detailed consideration and more radical changes than are called for now. Meanwhile, what our nation is facing for the first time is the difficult but supremely worth-while task of providing general secondary education for all its children in all their variety, and it is towards the accomplishment of that immediate task that our Report may properly be expected to make some contribution.

2. English

(1) ITS PRIME IMPORTANCE

269. No problem within the whole range of the secondary curriculum is comparable in urgency and importance with that of securing a good standard in the understanding and use of English. To fail in Mathematics or Latin is to leave boys and girls deficient in these subjects, but to fail in English is to leave them fundamentally uneducated. And the truth is that, despite the efforts and improvements of a generation, we are still short of full success in this primary task. Every recent committee on the curriculum has admitted as much, and the volume of criticism does not diminish.

270. The business man grumbles about boys and girls whose ignorance of spelling and punctuation is matched only by their inability to express themselves clearly in speech or writing, while the universities complain of scientific and technical students whose work is crippled by inadequate powers of expression, and even the arts student is reproached with lacking that command of simple, lucid English which might be expected from the chosen few. Not all of such criticism is justified: it is easy to generalise rashly from too few cases or to prejudge the whole question by pitching one's demands impossibly high. But, even when much has been discounted, enough remains to disquiet all who are concerned with the schooling of the nation's children, and we attach particular weight to the fact that so many English teachers themselves are ill-satisfied with present standards.

271. We insist in our Report on Primary Education that there must be no defeatism in this matter, but we are neither blind to the seriousness of the situation nor surprised that the Edinburgh Branch of the

English Association should urge an expert inquiry into all the problems connected with the teaching

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of English; for in the quarter of a century since George Sampson* strikingly demonstrated the cardinal place of English in the whole scheme of education, the schools have not so much solved the problem as merely become aware of its immensity.

(a) "Every Teacher a Teacher of English"

272. It seems to us that a fundamental issue is still undecided: is English in fact the responsibility of some, since they teach it, or of all, since they teach in and through it? Many have quoted the familiar dictum that every teacher is a teacher of English, because every teacher is a teacher in English; but is this accepted as an obligation or merely as all epigram? Does the Mathematics master really believe (and act on the belief) that his geometry period may yield the finest lesson of the week on the qualities of good English expression? Does the language teacher have any shame about accepting in the name of translation something which is a monstrous perversion of English speech? Does any staff as a whole accept what the Norwood Committee† thought a truism - "that the values of English are more important in the long run than the specific values of those subjects" (e.g. Science or Geography)?

273. On the contrary, we are convinced that, with shining exceptions, secondary teachers simply regard English as a "subject" or a "department", with its due allowance of time and "specialists" appointed to use it wisely. We cannot believe that, if secondary teachers admitted a collective responsibility for English, the standard of speech among themselves - and particularly among the men - would not be higher than it is; and we urge again the need for firm, indeed drastic, action by the training authorities to secure a substantial improvement.‡

274. We do not suggest that there is an equal responsibility for English on all teachers, or that the real though minor responsibility that rests on his colleagues relieves the English teacher of his special charge. But there is good evidence that during the past thirty years English teaching in Scotland has not lacked devotion, ability and common sense; and yet the gulf between its achievement and the minimum requirements of an educated nation is still so wide that one doubts whether it can ever be bridged without the active cooperation of the whole secondary staff. The verdict of the New Zealand Committee on the Secondary School Curriculum§ was that "a high standard of accuracy and fluency is obtained only by steady pressure in all subjects, all day long. Slovenly speech; inaudible question or answer; careless writing, spelling, or punctuation; inaccuracy in word or idiom - these things are a challenge to every teacher."

(b) Improvement in Teaching Necessary

275. One thing is clear, that the civilising work of English teaching cannot, under present social and cultural conditions, be made fully effective within the narrow limits of from four to six hours weekly of school time. If, therefore, the collective responsibility for English is

rejected by teachers of other subjects, the nation may have to consider an alternative which would, we fancy, be even less palatable to the specialists, namely, the drastic curtailment or even the complete postponement for a couple of years of work in Mathematics, Science and languages, in order that abundance of time may be available for the

*"English for the English", Cambridge Press, 1921.

†See footnote to paragraph 177.

‡Training of Teachers, Cmd. 6723, paragraphs 45, 119 and 174.

§The Post-Primary School Curriculum. Report of the Committee. Appointed by the Minister of Education, New Zealand, in November, 1942 - E. V. Paul, Government Printer, Wellington, New Zealand, 1944.

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English staff and that the direct attack on semi-literacy may be pressed over a much wider front and with an unhurried use of all available resources. It may be that what cannot be done in six periods weekly can be done in sixteen; and, in view of the great importance of this issue, we recommend that it be the subject of inquiry and that it should, if possible, be put to the proof by actual experiment in a number of schools.

276. But, without being dogmatic, we suspect that the solution is not likely to be found in merely emptying the curriculum and handing over a large part of the school week swept and garnished to the English teacher; for, unless we let him keep and use the varied content of the displaced subjects, there is danger that the seven devils of mere verbalism will enter in and the last state of the pupils be worse than the first. English teaching to the young needs matter as well as form: the powers of understanding and expression are not exercised in a vacuum but only on material congenial to the age and experience of the learner. Indeed, this is half the case for demanding the co-operation of all teachers. It is not merely that English may be taught during more periods, but that it may be taught in more contexts and commended to the young by its obvious right of entry everywhere. Ordinary pupils will never see English aright, until they see that it "comes into" Chemistry and History, into Geography, Geometry and Mechanics - even into the translation of Ovid or Daudet.

277. We summarise our conclusions thus. More must be done if a barely literate populace, debased by vulgarisms and corrupted by Hollywood, is to be transformed into an educated people, capable of understanding and using its inheritance of English speech. But whether it will best be done by uniting the indirect aid of every teacher with the direct work of the specialist or by sacrificing some lesser aims in order to increase the time and resources of the English staff, can be determined only by a much more exhaustive and expert inquiry than we were in a position to undertake.

278. Meantime, since the struggle against illiteracy is to be a long one, it were foolish either to ignore the real, if unspectacular, advance

that has been made or to be indifferent to the cumulative effect of slight improvements in the content or methods of English teaching.

(2) SUGGESTIONS FOR IMPROVEMENT

279. We have no revolutionary proposals to advance, but we offer these suggestions, which should be taken along with the relevant sections in our Report on Primary Education.

(a) The Spoken Word

280. There is need for much greater attention to the spoken word. Not only does speech come before writing in all human experience, it comes before it in importance, because it bulks so much larger in the lives of ordinary folks and is so much bigger a factor in what one might call their social adequacy.

281. Oral English has two aspects; speech training in the narrower sense, and the correctness and fluency of the spoken word.

282. We accept it as the plain duty of the schools to give every child a mastery of standard English speech. Not every form of local speech is worth preserving. With that rare thing, a genuine patois, the schools have no concern, save to respect it and leave it alone; with the oppressive mass of merely debased and incorrect speech the schools have an immediate and hostile concern - to war against it unceasingly. Nor need they be deterred by the

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fear that everyone will end by speaking alike: that is about as probable as that some day we shall all look alike. Meantime, it would be sheer social and cultural gain if through a closer approximation to standard English we did draw together in greater likeness of speech.

283. The campaign against the speech of the street, the cinema and the illiterate home (and not least against that strangely perverse yet rather admirable loyalty of the child and parent to them) admits of no truce, and in this fight the English teacher cannot afford to lack the weapon of thorough phonetic training. Under present social conditions, a teacher without this equipment is as absurd as a physical training specialist without a knowledge of remedial gymnastics.

284. There is no secret of easy victory here: just the steady uncompromising insistence on speech standards throughout school life: careful example, patient correction and the continual engaging of the child's imitative faculty with sound material. To lay the emphasis on imitation rather than on analysis is not, however, to rule out some instruction in the use of the speech organs when the stage for that is reached. It is essential that the teacher should be unfailingly kindly and gracious about the business of speech instruction and especially correction. No child will imitate a teacher whom he dislikes.

235. Careful reading aloud by the teacher has its uses, but in general the sounds of right speech will be best learned not in any isolation but along with that study of its sense and rhythm which is the other part of oral English. We should attach but limited value to "oral composition" in the familiar sense, but there is possible in the

classroom a great range of spoken practice conducive alike to better speech and to social ease; brief debates; the giving and receiving of instructions; prepared talks by pupils, followed by questions; group discussions; the simple procedure of meetings and committees; and perhaps best of all, the many varieties of dramatic work. In short, the socialised recitation without the name.

286. A valuable and rather neglected side of oral English is training in careful listening. As the Spens Report* says, "It is as important to receive a clear impression as to give one" - and possibly as hard. To read aloud a stanza, a brief description or a set of instructions, and require the pupil to reproduce the substance is an excellent exercise, for it at once gives a good model of speech and demands that attention to the sense-as-a-whole, as distinct from isolated words, which is the secret of language mastery whether oral or written.

287. In our Report on Primary Education we have characterised as largely waste of time the routine of reading round the class, but there is a stage in the secondary school at which reading aloud can be made a valuable intellectual training. The representatives of the English Association quoted to us Hillaire Belloc's dictum that the ability to read aloud *intelligibly* at sight is as good a single test as any that the possessor of it is a well-educated man. This is the counterpart of that listening for the meaning of the whole of which we have spoken; and this training in the apprehension of phrase and structure, which gives an immediate command of the printed page comparable with the musician's ability to read a score at sight. should be imparted to young people by regular practice in reading unseen passages aloud.

*See footnote to paragraph 102.

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(b) Written Composition

288. The teaching of written composition has in the past generation moved far in the direction of greater sense and simplicity, but it has still some way to go. The schools have in the main got rid of the moralising and sententious "essay", but there is still some failure to realise the unnaturalness of the essay form itself, and to make the essential distinction between the "writing that is a statement or record, and the writing which is a creation or invention." The first can be taught to all; the second can only be welcomed and encouraged in those who have the gift for it.

289. The clue to written composition is in the familiar fact that no child shows a uniform ability to write. Where the subject is congenial, where the writing grows out of his own interest and experience, it is lively, colourful and effective; where it has no roots in himself it is dull and lifeless. It follows (1) that most of the material of composition should be homely, practical and concrete, and (2) that when it does go "off the ground" it should be in a direction natural to the mind and experience of adolescence.

(i) "Communication" Writing

290. The material of "communication" writing can take many forms; letter writing, if possible to real people on real topics. e.g. to a friend

or to a ship adopted by a school; short descriptions of things read; simple statements describing things done in workshop, kitchen or laboratory; "insets" to attach to history or geography wall charts; summaries of directions and reports. It will be noted how much of the best, because most natural and relevant, composition arises out of school work other than English, and what added scope is given to the English teacher if he takes other subjects as well and has a considerable block of school time to use at his discretion. In one junior secondary school, for instance, instead of a term's weekly essays each pupil made a small book called "Travellers' Tales." In it he described famous journeys of exploration in their historical sequence, each illustrated by a free-hand coloured map of the route followed. A cover was designed and painted, and the book completed with introduction, index and table of contents.

291. The form of composition that consists in expressing and arranging certain data has the further advantages that the correction of such exercises is much less laborious for the teacher and leads to a class discussion of general mistakes, which is more profitable and less depressing than the dissection of individual faults.

(ii) *Creative Writing*

292. So far as young secondary pupils are capable of writing which goes beyond "communication" English and reveals a touch of fancy or invention, their creative impulse should be directed not to the essay but to those simpler and more primitive forms, the story, the dialogue and the play. In familiar history and legend there is unlimited material for either collective or individual composition, and the class-magazine and the class-play are there to give a point to youthful effort. Apart from its inherent unsuitability, the essay form is open to the objection of being completely pointless in the eyes of children. As George Sampson said, "They can understand writing a story for the class-magazine or a play for a class-performance: they cannot understand writing an essay for the waste-paper basket."

293. Where essay subjects are given, they should have what has been well-described as "a real seizable content capable of straightforward development by young people."

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(iii) *Training in Composition*

294. On the formal side of training in composition, the besetting temptation is haste to secure results. Foundation work in the building up of vocabulary is of necessity slow, for it involves more than the grasp of isolated words. It means that the word must be practised in other contexts till its colour and habit are understood; and it also means training in that far harder comprehension and mastery of idiomatic usage without which writing may remain stiff and laboured, even though grammar is sound and vocabulary wide.

295. Our attention has been drawn to the danger of over-stressing the merits of the short sentence, when pupils have reached an age to appreciate writing of more architectural quality. The Edinburgh Branch of the English Association in its memorandum suggests that "instead of encouraging the pupils in middle and senior classes to go

on thinking in and writing strings of short, detached, simple sentences (a style most fatiguing to read and difficult to follow) teachers should instruct them how to subordinate the less to the more important, and how to construct sound sentences in which the central idea fills the principal clause and the subsidiary ideas fall into subordinate clauses, or into participial, adverbial or prepositional phrases or even into single words."

(iv) *Spelling, Punctuation and Grammar*

296. On the triad of spelling, punctuation, and grammar brief comment will suffice.

297. The school must take the realist view that while spelling may be a pure convention, it is one the disregard of which creates a very unfavourable impression and is handicapping to young folks in the ordinary business of life. It is for the schools, therefore, to concentrate on the high-frequency words that form part of the "writing" as distinct from the "reading" vocabulary, and consistently to assume that within this range a high standard of correctness is possible. Pupils should be trained in the regular use of the dictionary and shown how spelling may be helped by an understanding of the origin and make-up of the word. As we stress in the Report on Primary Education, spelling is essentially an "eye" subject: hence, little time should be spent on dictation. If any form of that overrated exercise is worth keeping, it is probably prepared rather than unseen dictation.

298. So far from being trivial or arbitrary, punctuation is an important element in written expression, with a bearing on syntax, emphasis, sense and intelligibility. To treat it lightly is to affront the written word; to neglect the teaching of it is to throwaway one of the "chief constructional tools of composition."

299. It is as easy to overrate the importance of grammar as to underrate that of punctuation. The isolated study of grammar by young secondary pupils is a barren exercise which has no appreciable effect on the quality of their composition. We recommend that systematic practice in parsing and analysis should not be required in any School Certificate syllabus. Teachers should be free from any coercion to teach more grammar than the modicum experience proves to be useful for composition. We should expect that minimum of grammar to be functional, related to the pupils' actual reading and composition, taught almost solely by examples, and concentrated on the correction of common errors - not as a witness said, "the grammar of what they never go wrong in". With older pupils the time formerly given to grammar might

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more profitably go to some study (by reading and practice) of the principles of word-order, as they are determined by the interaction of syntax, idiom and rhetoric.

(v) *The "Architecture" of Writing and Clear Thinking*

300. Expert witnesses have stressed too the importance of not let tim, training in composition stop short at vocabulary and idiom, grammar and punctuation. For older secondary pupils there is great profit in

studying the "architecture" of writing - all that is involved in adequate connection, proper paragraphing and correct proportioning.

301. It is a moot point how far in the top classes boys and girls can be formally taught the principles of clear thinking, but from more than one quarter has come the suggestion that grammar might give place to some instruction in elementary practical logic. This much is certain; that the teaching of English to seniors fails of its full purpose, if they do not "realise that clear thinking and logical expression are the crown of composition and that all the formal correctness on the lower levels is merely a means to that end."

(c) Reading

302. No extent or variety of rapid reading can take the place of a close, painstaking study of carefully selected texts. The temptation to range widely is great and impatience at the slowness of intensive reading easy to understand; but to yield to such temptation is disastrous. What must be established for boys and girls in the secondary school is nothing less than "conscience in reading", a scruple that will let no difficulty or obscurity pass. In due time, as vocabulary and grasp of structure increase, the pace will quicken, and thoroughness be rewarded by such interest and understanding as are denied to slipshod reading.

303. For intensive study, books of graded selections are preferable to complete texts, and the extracts should be varied in subject matter. With such reading, practice in writing will go hand in hand; for, while we may separate the two sides for purposes of comment, they will be in constant interaction within a well-balanced English discipline.

304. We draw attention here to the frequent complaint that passages for interpretation set to test close reading and comprehension tend always to favour the classically trained boy, being drawn too exclusively from historical and political sources. We suggest that more justice might be done to pupils whose reading is on scientific lines, and that in ideas and vocabulary alike Darwin, Huxley, Jeans and Romanes merit study as truly as Burke or Newman or Macaulay.

305. The general reading of secondary pupils should include more prose than poetry, more modern literature and less of an older fashion, while the emphasis should be laid on content rather than on form. That a book is well-written and suitable for school use is its title to inclusion, not any literary pretension. Even with junior classes, however, the reading should not be confined to narrative: it is the business of the schools to introduce the young reader to that wider literature "of description and fact, explanation and exposition, speculation, argument, and persuasion."*

*Memorandum by the English Association (Edinburgh Branch).

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306. We consider important for school purposes the distinction drawn between direct and indirect writing, between authors like Cobbett, Macaulay and Newman whose primary concern is with what they have to say, and those others such as Lamb, Hazlitt and Stevenson, who are conscious of their styles and preoccupied with the manner of

saying things. For school reading, the direct writers are to be recommended, though that is not to deny older and abler pupils their delight in the more mannered and consciously stylistic English prose.

307. In regard to non-intensive, recreational reading, the teacher should show a large tolerance: his business is to stimulate, not to prescribe, and a frank admission that there are a score of different kinds of worth-while book may win a boy to some love of reading who would only be alienated by a narrow canon. Nor is it necessary that all the members of a class should read the same texts. Six copies of ten books are far better class equipment than thirty copies of two.

308. We deal with the school library in the closing chapter of the Report, but nothing we say there is inconsistent with a strong belief in the value of class libraries. Especially for younger pupils there is an appeal about the books that are passed round and commended by one to another within the smaller and more intimate circle. And here we take the chance to stress that, like the school library, every class library should have its books of reference and have them in constant use. There are few better services the schools can do boys and girls than to train them in the getting and collating of facts, in the delectable habit of poking about among those books that are veritable storehouses and extracting what they need.

(d) The Teaching of English Subjects to D and E Pupils

309. What we have said so far is applicable at varying levels to the general range of normal children, but special importance attaches to the teaching of English to the weakest third of the school, the D and E pupils.

310. These boys and girls have very little of the verbal ability which facilitates the study of English and gives that sense of achievement from which come quickened interest and the effort to progress. It follows that, while the teaching of English to such pupils will always be elementary, it will never be easy. It may not demand the best scholar on the staff, but it will tax the best teacher to the utmost, calling for exceptional patience, resourcefulness and understanding. Because the schools have largely ignored this fact, the teaching of English to D and E pupils has been in the main a record of failure rather than of successful practice and proved techniques. The able teacher must, therefore, recognise that this is a largely uncharted field and approach it in a spirit of inquiry and experiment. He may safely assume that the treatment must be not literary but homely and practical, and the less he talks and the more the pupils act, the greater is the likelihood that he is on the right road.

311. It is generally agreed that the junior instruction centres confronted the teacher with a very sharp challenge, and it may be of interest to record a method that was found to work there. It was a method of individual or group inquiry carried out in a room furnished with a variety of reference books - encyclopaedias of different sizes, two or more gazetteers, several atlases, dictionaries, a biographical dictionary, an old "Who's Who", a Whitaker's Almanack and one or more daily papers. A series of cards was prepared, each having at the head of it a picture, a cartoon, an advertisement, shipping

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information, a news paragraph or any kind of printed matter that provided a starting-point for thinking or inquiry. A number of questions were typed under the pasted extract. It was then for the individual (or the group) to find the answers and write them in his notebook. The teacher's part was to give just enough help or clue to enable the pupil to find the more difficult information for himself. When one card was satisfactorily finished, another was given out, care being taken to grade the problems to the mental powers of the pupils. Much success was achieved with a similar but not identical use of cards at Lankhills.*

312. We put this forward simply as an illustration, not as a model. No teacher is called on to adopt this or any other specific teaching device, but every teacher should show a like inventiveness and adaptability.

313. In appealing to the schools to attach a wholly new importance to the English (and that does not exclude the material of History or Geography) of such boys and girls, we would remind them that these are the pupils who, because of their mental limitations, will be the least educated through their work. Not for them the absorbing interests of the professional man and the technologist, or the deep satisfactions of the fine craftsman. Few of them will escape their destiny to be machine-minders and routine labourers, and it becomes an urgency to provide an antidote to the monotony of their work.

314. What can be done for these children may seem a poor thing compared with the service of awakening a gifted boy to the wonder of Keats or Shakespeare, but that is a superficial view. For in almost every case the able boy will enter into his inheritance unaided, whereas the D or E pupil is pathetically dependent on what his school can do for him; and so, if due account be taken of the difference it makes to the dignity and sufficiency of a human life, it may well prove the nobler achievement after all to have led even a few dull children into the humblest forecourt of the palace of mind and imagination.

(e) Literature

315. In Chapter V of the Report, we treated the teaching of literature as a thing apart, and in the present section we have been content to speak of interest or pleasure in reading rather than of literary appreciation. This implies no disparagement of the latter, but is on the contrary a humble admission that while certain things can be imparted by all competent teachers to all normally endowed children, there are others that require rarer gifts alike in the bestowal and in the acceptance. No rules can be laid down here and no infallible recipe given; for a man's success in transmitting to others his own appraisal of great literature and in leading them into new worlds of feeling and imagination comes not from his qualifications but from his qualities, not from the skill of his teaching methods but from the authenticity of his witness. Literary scholarship and critical expertness may avail very little, for it is not knowledge that is to be conveyed to others but an experience, and it can be, caught only by a kind of beneficent infection from those who have it. No man can give young people a vision of greatness, unless in so far as he habitually chooses to live with it himself.

316. From a field where the conditions of success are so elusive and its rewards so great, the formal examination must be banished altogether. To examine literature is as impossible as to imprison sunbeams. To attempt it is

*The Education of the Ordinary Child (pp. 193 et seq.) by John Duncan. Messrs. Thomas Nelson. & Sons, Ltd.

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to break the spell and ensure that our sixteen-year olds are occupied either with the factual accompaniments of literary study or, what is far worse, with that glib misappropriation of other men's literary opinions which is the death of sincerity and of direct response to the appeal of great writing.

317. There is, too, a further reason for not trying to assess what is either inspiration or nothing at all: only when the examination has gone will the teacher be free to determine the content of his teaching in disregard of official syllabuses and conventional ideas about what children ought to read, giving rein to his own deeply felt preferences and the desires of his pupils.

318. One more responsibility rests on the English teacher. As boys and girls grow toward years of reflection, he must bring them to see in great literature the store-house of human experience, a source not of pleasure and recreation alone but of comfort, counsel and enlightenment. We have spoken in such terms of science and technology that we shall not be open to the charge of belittling them now if we stress what science cannot do. When every other problem has yielded to its advance, the last problem remains, at best unsolved, at worst aggravated, because science has armed. folly and cruelty with power unbounded. For the ultimate problem is spiritual, concerning man's ability to break the tyranny of circumstance and deal wisely with life itself; and, if he seeks guidance here, he must turn not to science but to the spiritual leaders of the race and to that great tradition of western humanism which is not the antithesis of religion but one of its finest flowers. Some few may find what they seek in Aeschylus or Plato, Virgil or Dante, but for the generality of men and women it must be found in the great things of our own literature and history or not at all. It is, then, the supreme responsibility of the English teacher to show a generation sore beset where it may find the wisdom it so greatly needs and the vision for lack of which its world is perishing.

(f) The School Play

319. In no single school activity are all the values of the new education so finely embodied as in the production and acting of a play. It integrates, as nothing else does, almost every department of the school; for literature, the social studies, art, music and the dance, electrical science, the workshop and the sewing room are all alike mobilised to one end.

320. It gives the freest scope to the most varied talents, and in its uniting of individual effort and self-expression with sustained corporate enterprise it is a microcosm of the school as community.

a2I. It draws together what educational unwisdom has too often divorced, the intellectual and the practical, the artistic and the homely. And it has its own lesson to convey; for it has brought to many a gifted youngster the first realisation of his dependence on schoolmates whom he had lightly esteemed, and it has given to some who were but modestly endowed the joy and enhanced self-respect of discovering that they are needed and have indeed a part to play, whether it be before the footlights or behind the scenes.

3. Handwriting

322. This is merely a pendant to what we have said about writing in the Report on Primary Education. We draw attention there to the disappointing fact that, whereas most pupils on leaving the primary school write tolerably well, many pupils on leaving the secondary school write intolerably badly. We pointed out in fairness that the deterioration is no conclusive evidence of

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neglect on the part of secondary teachers, since a possible explanation is that the primary school is teaching a style of writing which does not stand up to the more exacting demands of the secondary school for speed and quantity. But a verdict of "not proven" is hardly one of "innocent", and we suggest now that the secondary schools might provisionally at least admit some degree of fault and consider what can be done about it.

323. The conditions of secondary school work undoubtedly make good writing more difficult, but may it not be that the root cause of the prevailing bad writing is neither unavoidable haste nor any serious defect in writing skill but the sheer carelessness of pupils at an irresponsible age? It is significant that in this matter girls are in general less blameworthy than boys and that many of them write very well indeed. There is evidence that where a secondary staff is prepared in concert to make itself thoroughly disagreeable over had writing and to reject everything that falls below a reasonable standard, the general level of handwriting in a school can be markedly improved in a few weeks.

324. It would be the natural complement of such proper concern on the pari of all that handwriting should he a special charge on one or two of a staff. The latter might be asked to acquire some familiarity with the accepted methods of teaching the subject, so that pupils whose bad writing failed to respond to the collective "persuasions" of the staff might be sent to them for corrective teaching.

325. Research is undoubtedly necessary and may lead to improved techniques and better writing; but we think the schools should meantime pay heed to criticism in this matter and, while hoping for more light, make sure they are walking in the light they already have.

4. Social Studies

(1) TIME ALLOCATION

326. We sympathise with but reject the claim that there should be a large increase in the time devoted to social studies during the earlier

years of secondary education. We sympathise, because on the assumption that underlies the present practice of the schools, the demand seems to us unanswerable. If the familiar subjects of history and geography should be taught as such in a systematic way to children of twelve and thirteen, and examined with the expectation that these boys and girls will have at call large stores of factual knowledge, then the customary time-allowance of two periods a week to each subject is demonstrably insufficient, and the teachers concerned have a longstanding grievance. But we are free to reject the conclusion, since we do not admit the premises. The decisive reason against giving eight or ten periods weekly to history and geography at the stage we are discussing is not the congestion of the timetable, serious though that is, but the immaturity of the pupils, an immaturity which makes it fairly certain that doubled time would mean, especially in history, only redoubled labour on inert facts.

327. Both in our Report on Primary Education and in Chapter V of this Report, we make clear our opinion that the serious study of history (and the same is in great measure true of geography) must lie outside the years of compulsory schooling, because children lack the developed time-sense, the broad grasp of principles, and above all the psychological understanding necessary for the causal interpretation of human life extended in time and in space.

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(2) PURPOSE OF COURSE

328. Accepting these limitations of the child and young adolescent, we are content to see the chronological study of history in periods and the systematic study of geographical regions postponed, and the time given in the early secondary years to a simpler and more integrated course in social studies, with quite different aims. We think such a course should seek:

- (1) To satisfy natural curiosity, quicken imagination and help the child to build up individual interests. In the process, he would incidentally acquire some store of facts, not systematised but having the "cues and feelers" that attach to what has been learned in living associations.
- (2) To foster generous and desirable attitudes of mind towards persons and things.
- (3) To give the child a growing sense of belonging to a place and to a community.

329. We think it essential that the course should during the first three years at least be taken by one person, and desirable that the teacher should be the same who is responsible for the English of the class. If the theme is man in society, then the treatment must be integrated, and experience shows that it is vastly easier to break down artificial "subject" barriers, when only one teacher is involved. Moreover, successful work with weaker pupils depends on the possibility of carrying out projects, which demand a fairly fluid timetable. Again, if history and geography are set up in separation, much that should be included in the course may lie outside both of them and be neglected.

Whenever history is taken by itself, the emphasis tends to fall on the political and the military, while geography becomes either scientific or rather narrowly concerned with commodities: in consequence, the social habits of peoples, their work and play, their cultural and religious traditions, their institutions and forms of organisation - all constitute a sort of no man's land.

330. We found the representatives of geography alive to the great advantages of uniting the subjects at the more elementary stages at least; but while "Barkis is willin'", there is a marked coldness from the side of history, some of whose spokesmen advocate the use of the specialist teacher even in the first year, a policy which we believe to rest on a misconception of the aims of secondary education at that stage. One history teacher of wide experience, however, supported co-ordination of the work, holding that the lack of it "leads to a good deal of wasted effort in teaching and of unintegrated knowledge on the part of pupils." Similarly; the New Zealand Committee on the Secondary Curriculum* remarks: "All work in the social studies in anyone class would (normally) be taken by the same teacher. If the studies we propose were covered in separate courses labelled 'Geography' and 'History and Civics', we think great pains would need to be taken to avoid overlapping and lack of articulation."

831. To recommend this integration of social studies at the early adolescent stage is not to force a union but to recognise a unity that is always there, however misguidedly the schools may seek to keep the elements asunder. The story of the rise and decline of civilisations, of frontier changes and eliminations, of movements in commerce and in warfare, is history and

*The Post-Primary School Curriculum, p. 25. (See footnote to para. 274.)

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geography intertwined; and we accept the rough generalisation of one of our witnesses that geography is the economic and social history of the present, just as history is the economic and social geography of the past.

332. While social studies should everywhere have the same broad intention, there are cogent reasons why courses should vary from school to school, or even within the same school. This is a field of study. in which it is peculiarly easy for uniformity to do injustice to the great range not merely of intelligence but of interest and vocational aptitude, and any good course must leave room for much group and individual work. It is essential, too, that every course should start from the immediate environment of the pupil, and if due account is taken of the characteristic features of locality, that alone must always give a distinctive cast to social studies in any area.

333. But the strongest reason of all why there must be no standardising of courses is that in this matter the schools are only at the beginning of a long road of trial and experiment. What knowledge they have is largely negative: the realisation that a heavily factual textbook treatment of history and geography is a failure, the more complete in proportion as the pupils diverge from the traditional pattern of bookish ability and acquisitive diligence. The positive knowledge required-how young adolescents actually grow in social

consciousness, and which elements out of the immense complex of social phenomena will foster that growth-is still to seek; and it is no overstatement to say that the getting of this knowledge and the building wisely on it is one of the biggest tasks awaiting secondary education.

(3) GENERAL LINES OF COURSE

334. We go on now to indicate the general lines a social studies course should follow; and, if we adopt the familiar headings of geography and history, it must be clearly understood that this is at most a distinction resting on convenience, not a separateness rooted in reality.

335. Educational need and social need alike decree that the study of man in his environment should start from the home locality and the familiar scene. We pointed out in Chapter IV how modern conditions of life have left the child rootless and socially uninitiated, and it is the business of education to restore by conscious means that sense of community, of the collective life and purpose, which in simpler and more static societies came to the young out of the common experience. Since the first stage in social awareness can arise in the child only from the impact of a community small enough to be physically and mentally comprehensible by him, social study must begin with the immediate neighbourhood and take the form of a local survey, designed to find out how the district or region lives, how it came to be as it is, and how its state can be bettered. Clearly such a survey, even at the modest level possible for young secondary pupils will involve strands of geography, history, civics and economics, all crossing and re-crossing to form the social pattern.

(a) Geography

336. It will include geography, both in the making and in the study of maps and plans. To study large scale maps of the area in which one lives, passing continually from the real to the representation and back again, is the natural way in which to learn the meaning of diagrammatic portrayal of things in space and to acquire a sense of proportion. At every stage, maps, not textbooks, are the essential instruments of geographical teaching, and there is need for much extended practice in their use, especially maps recording population and the location of industries.

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337. In local study it is as important for the pupils to be able to make simple sketch maps for themselves as to be able to read maps. Actual work in the field should give boys and girls a training in the discovery and recording of geographical facts - and incidentally a training in resourcefulness and independent effort.

338. We speak of historic places, but all places are historic, just as all families are old families; and, as has been pointed out, the moment a child asks the simple question - Who lived in this house before us? - his feet are set on the path that leads into the local past. Of local history we shall speak presently: it is enough here to point out how inextricably it is bound up with the geography and survey of the area. Incidentally too, any inquiry into local life, be it of village, town or

city, will embrace some study of its administration and public services. It is with this concrete reference that civics should be taught to young people, not in a neat scheme from a little textbook.

339. The great problem of local survey, as of social studies generally, is integration-to find some unifying idea or purpose which will draw the thinking and the active inquiry of young people together and prevent their survey from becoming a loose array of discrete material. There is much to be said for finding the co-ordinating idea in the "work" of the locality, both because a man's job is in general what roots him in a community, and because we are dealing with young adolescents whose strong vocational interest attaches very naturally to allY inquiry into livelihood. The concept of work must be wide enough to include the secondary but indispensable occupations, and the contact with "work" should be as real and close as it can be made.

340. It is only from such study of neighbourhood actively pursued that children can gain the necessary sense of "belonging" and have a growing consciousness of their part in and obligations towards the common life.

341. In a real sense geographical study is only an extension of such local survey. With the child's growth in knowledge and understanding, the area widens to the region, that "product of the interaction of place, folk and work"; then to the country, with the added idea of nationhood and all the sentiment that clings to it; and finally to the whole earth, with the contrasting feelings it arouses of strangeness and of solidarity. But however the scale may vary and the degree of detail, the guiding ideas remain the same - the interaction of man and his environment, and the ever-deepening interdependence of community and community. Unchanged, too, is the criterion of what is important, namely, relevance to the life of today and tomorrow.

342. It is unnecessary to consider in detail the content of courses in geography. Excellent material, applicable to different intelligence levels, is available in, to name only three sources out of many, "The Education of the Ordinary Child"*, "Curriculum"† and "The Content of Education"‡. But we are more concerned with the standpoint from which the work is approached and the spirit in which it is carried out.

343. Here, as in other subjects, it is dangerous to assume that the kind of unity or wholeness which seems natural to the adult mind will commend itself to children. The study of a region or series of large-scale regions (e.g. the Southern Continents) has a tidy, logical quality satisfying to mature intelli-

*John Duncan - Nelson, 1942.

†Scottish Council for Research in Education - University of London Press, 1931

‡Council for Curriculum Reform - University of London Press. 1945.

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gence, and very bright pupils may respond well enough to such teaching, precisely as they do to Euclidean Geometry or Latin Syntax. But the ordinary child may, and the dull child almost certainly will, be interested rather in a concrete unity such as the life of a people or in

topical unities like food or transport; and in a field where the pupils' interest or lack of it means everything, the teacher must be content to follow wherever adolescent curiosity leach.

344. Full satisfaction should be given to children's keen interest in the life and customs of other lands. This may be no more than descriptive geography, but it is amply justified both for the pleasure it gives to young minds and for the part it plays in that widening of sympathies which is a prime aim of all social study. Great use should be made of visual aids, and of visits to museums where pupils may see under expert guidance the artefacts of peoples whose way of life they have been studying.

345. We plead strongly for more and better books in the study of geography. The textbook has its place as an orderly compilation of material for reference, but there is little inspiration to be got from it. Boys and girls have much to gain from those other books written at first-hand by people who had the eyes to see and the words to convey the colour and variety of the human scene or of the natural background against which man plays his part.

346. We recommend, too, the provision of more and better globes. Maps are good, but globes also are essential: indeed, when a child's thinking in geography passes from the projection on the flat to the globe itself it takes on a new quality, namely the realisation of three dimensions for which we have pleaded throughout this Report.

347. It will be evident that we consider geography below the VIth Form a social and humanistic, not a scientific, study. There are certain elementary facts of astronomy or meteorology which may be presented simply to secondary pupils, whether by the teacher or general science or by the geography teacher; but, beyond these, physical geography should be studied purely for the light it sheds on men's food, clothing and shelter, on their occupations and products, sources of power, modes of communication, health and sports.

348. Unless great care is taken, a most vital subject can be killed by the intrusion of scientific teaching barren of relevance and devoid of appeal - and one encounters the absurdity, to which our attention was drawn, of children solemnly taught whether a given mountain system is "a folded system or a dissected plateau", while there is no assurance that they have clearly learned what really matters about mountains - "that they have been a barrier to the migration of peoples and customs; that they are defence lines; that they affect climate; that they have presented great problems to the road and railway engineers; that they are hard to cultivate."

349. We recommend the provision in the secondary school of a social studies room, equipped with visual aids and having ample storage accommodation, where the subject may be taken in a practical way and individual work be encouraged.

350. What we said at the beginning of Chapter VI about teaching and learning applies with unusual force to social studies, and we close this section by quoting with warm approval the words of one junior secondary school teacher of these subjects: "I try to do the minimum amount of testing, so as to leave more time for teaching, and the

minimum amount of teaching, so as to leave more time for the class to carry out work of its own."

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(b) History

351. In a recent article on the history of science,* the Professor of Modern History at Cambridge tells how boys of eleven or twelve whom he knows profess to loathe history and yet in their passion for railways have acquired a truly astonishing amount of historical knowledge of railway engineering development and some power of judgment. Professor Butterfield then goes on: "Ordinary curriculum-history may become so dark a screen to boys of this age that one may be forgiven for hoping that on all occasions it may be reduced to a minimum; so that children may wind their way into the past along tracks that have meaning for them, not so much 'learning history' as learning to see everything historically - railways, soldiers or ships at one time for example; the English language and the science of geography at another time. In particular it would be useful and it would be humanizing if when they learn chemistry they could find that the teaching of the subjects was always married and interlaced with the study of its history; so that the knowledge of the science itself might come to them, so to speak, wrapped up in the whole story of human thought and endeavour in this field."

352. We could not have wished for a more authoritative and striking confirmation of that view of history teaching which we elaborate in our Report on Primary Education, and which we believe to be as applicable to the earlier secondary years as to those that precede them.

3.53. Pupils in early adolescence cannot in the strict sense learn history, but they can "learn to see everything historically", and that is precisely what we suggest by a topical rather than a chronological treatment. For seeing historically does not mean going back to 55 B.C. or 1066 or 1588; it means looking at something in the here and now and seeing it in a new light. We forget the extent to which in our modern civilisation young people grow up ignorant of the meaning and background of what is about them, seeing things in the flat and not in depth. To cure this lack of stereoscopic mental vision, their attention must in the first instance be arrested by something in the familiar environment which is socially significant, e.g. housing. From a comparison of houses differing in type, material and degree of modernity, a class, its interest awakened, will bring together a considerable amount of information, some of it probably new to the teacher. Such inquiry and observation widen out naturally to a consideration of primitive man's need of shelter from wind, rain and temperature, and how that need must be very differently met in the Tropics and in the Arctic. Given this point of interest in the present, and the reach back in thought and imagination into the past, the teacher can then trace with the class the development of shelter and houses from early times down to our own day.

354. The field for such investigation and discussion is wide, especially with pupils of secondary school age. In addition to the history of the road, the wheel, the ship, lighting, money, weights and

measures, there are the growth of language and written records, the story of medicine and of warfare, the development of custom and taboo into law, and the evolution of music and the visual arts.

355. Such an approach to history has great advantages. It is universal, not in an abstract way, but because thought and fancy are continually centred on needs and endeavours common to every age and clime: hence it makes for

*Time and Tide, 8th Jan., 1946 - Notes on the Way, by Professor H. Butterfield.

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an attitude of mind more conscious of what unites men than of what separates them. It does not involve, unless incidentally, those political and constitutional conceptions which baffle the immature understanding and make history, as the schools have taught it, so unprofitable a study in early adolescence. And lastly, it lends itself to much activity on the part of pupils themselves; for, instead of absorbing largely by memory successive sections of a text-book, they will be surrounded by atlases, globes, gazetteers, history source-books,* and illustrative material of all kinds, and compelled to quarry for themselves. There is room for a great variety of projects, and for individual and group work in the form of lecturates, reports and discussions. It must be remembered too, that the past is everywhere about us, and a live teaching of history will send pupils out of school on visits and expeditions of many kinds.

356. The other unity which young minds can grasp is that of events and achievements comprised within the life of one man or woman; hence full use should be made of the biographical method. Judicious selection is everything here; and it must be kept in mind that "significance for the world of today" is not to be measured by nearness or remoteness in time; Caesar and Mahomet mean much more for the understanding of our world than does Bolingbroke.

357. It is argued that the topical and the biographical treatment of the past are alike insufficient, in that they give little training in that discernment of cause and effect which is the essence of historical study. So far as the charge is true, this limitation is inevitable; for it inheres not in a particular method but in the immaturity of the pupil. It is only an illusion that the conventional teaching of history escapes it: when a boy of fourteen or fifteen is invited to give the "causes" of the Wars of the Roses, he does not cunningly separate out the significant strands from the complex web of history; he merely parrots what another has set down in the textbook or on the blackboard.

358. Wise teaching must be content to garner what each stage of childhood and youth can yield; and, instead of straining after the unattainable, namely, the power of analysis and a grasp of the causal nexus of events, we should be satisfied if young secondary pupils catch through feeling and imagination something of the glory and travail of the human past. To "admire and bow the head before the romance of destiny"† is not the only lesson of historical study, but it is much if young people are touched to a gallant pity for the "toiling hands of mortals" and the "unwearied feet."

359. Like the understanding of causality, the accurate time-sense comes only with the years, and its maturing cannot be hastened by the mere learning of dates. But, as we point out in our Report on Primary Education, some idea of sequence may be got by using graduated time-lines for each topic, and from a comparison of these charts will emerge a rough idea of time-relations, and incidentally some knowledge of dates.

360. Two matters call for comment - (1) the importance of very recent history, and (2) the significance of local history.

(i) *Importance of recent History*

361. It is a teasing problem for the history teacher that the period most vital to the understanding of current affairs, namely the last 150 years, seems to hold most difficulty and least appear for young students. In history above all

*We have in mind such work as the many volumes of "A History of Everyday Things" by M. & C. H. B. Quennell Batsford.

†R. L. Stevenson - Dedication to Catriona; and El Dorado.

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subjects much must be left unfinished, but it is generally felt to be intolerable that boys and girls should leave school with almost no knowledge of the nineteenth century. If then some attempt must be made to teach the recent past, and it proves both intractable and unattractive when treated as a "period", we suggest that here too a topical approach may give better results. "Nineteenth century history can be for the not-too-bright an arid waste of treaties and alliances, but a discussion of the present world situation going back at various points to its nineteenth century origin can be a very different thing."* What gives especial urgency to this problem is the fact that any dynamic teaching of civics (as distinct from the imparting of some factual information) depends so largely on the nineteenth century coming alive for the boys and girls in our schools.

(ii) *Significance of local History*

362. Nothing can be better or worse than local history. To start from the rich vividly-felt reality in which the pupil lives is the merest common sense, and some of the most telling illustrations for the teaching of universal history may be drawn from the familiar material of the local past. It is not smallness of physical scale but pettiness of spirit that makes local history mean and distorting. Local men and events do not gain moment merely by being ours: such an idea is not history but egotistic parochialism. But, if we can see that the meaning and dignity of our own annals reside in their representative human quality: that is, if we can bring them "into organic relation with the whole process of man's history", then it is impossible to exaggerate the value of their study for young and impressionable minds.

(4) COURSE FOR VERY ABLE PUPILS

363. Throughout this section on social studies we have had in mind primarily the 80 per cent of children who range from intelligent to

dull, not the small minority with high intellectual powers. We do not suggest that for the latter the traditional teaching of history and geography has been largely ineffective, but we are convinced that even they have much to gain from the more homely and topical approach we have proposed. While, therefore, the course for the very able should be different, it should differ not by reverting to a chronological treatment of periods but rather by enriching the biographical and topical material through the infusion of a much bigger element of political history. There is, of course, no objection in principle to a picked class making a careful study of a period of history before the School Certificate is taken; but it should be done to acquire not a mass of historical fact but a technique of study which the serious student may later apply to any stretch of history, be it Scottish, British or European.

(5) VIth FORM WORK

364. When the VIth Form is reached, the nature and scope of social studies change. They then become the freely chosen pursuits of able boys and girls rapidly maturing in their intellectual powers, and most of the limitations of the full study of history and geography are left behind. At this stage the history teacher may properly begin to enforce "the rigour of the game" and demand something very different from the spontaneous response of children to the colour and pathos of the human story. Much time can now be given with utmost profit to a subject that combines the austere discipline of a science with a rich humanistic appeal.

*The Content of Education, p. 167.

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365. We do not venture on any detailed suggestions as to the content of advanced courses in history; but we hope they will always have as their first aim not the amassing of historical facts but that training in critical judgment, in the mustering and weighing of evidence, which is the best reward of historical study and a great need of our time. This would seem to imply some concentration on short periods and extensive use of source-material. We hope that much good work will be done along the lines followed with great success by Dr. F. C. Happold at The Perse School and at Bishop Wordsworth's.

366. Although VIth Form geography must do justice to the scientific side of the subject, it should never become simply a science. On the contrary, great stress should still be laid on the human aspects, and the closest affinity of the subject should be with those studies in modern history and elementary economics which will engage the interest of an increasing number of good students in the years ahead.

367. The vexatious limitations imposed by the immaturity of pupils during the earlier years and the great importance of social studies for the public life of our country are the justification for making them a "compulsion" throughout the VIth Form. Accordingly, we recommend that all VIth Form pupils not taking full courses in history or geography should give at least two periods weekly to the continued study of social science. What we have in mind is not any truncated or small-scale textbook course, but some consideration of historical, geographical and economic factors as they are operative in

current events: and the method of approach should not be by lectures, but through guided reading combined with group discussion under the direction of a highly qualified teacher.

5. Classics

(1) GENERAL

368. It is very hard to make suitable provision for dispossessed royalty, and no small part of the difficulty in discussing the place of classics in our schools lies in the contrast between the regal, indeed the imperial, sway they exercised for centuries and their necessarily more modest station in the contemporary world. Proposals which in other circumstances might have been accounted generous seem against the background of so great a past little short of a betrayal.

369. We accept as indisputable the claim that what Greece and Rome have given to modern civilisation is unique and irreplaceable and that, if our political and cultural life is not to be grievously impoverished, the classical inheritance must in every generation be interpreted anew by men and women who have drunk deep of the ancient springs. It follows that we desire to see a due proportion of our ablest minds turning as they have always done to the classical disciplines and that we should regard the provision for secondary education in Scotland as gravely defective if in any corner of our land an able boy were denied his entry into the ancient inheritance because there was no one qualified to guide him. We approve the insistence of the Scottish Education Department that classics and not Latin alone must be the basis of recognition as a specialist teacher, and we strongly recommend that every secondary school offering courses of four years or more should have on its staff a classical honours graduate fully qualified to teach both languages. We have a twofold concern to secure this provision, firstly to safeguard Greek, and secondly for a reason that will presently appear.

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370. We deplore the extinction of Greek in so many schools that have in their day produced fine classical scholars. Admittedly there is no remedy in compulsion; but there is a counter-compulsion of a negative sort which is equally indefensible - the forcing of an able boy or girl to turn away from Greek to other studies either because no teacher is available or because his time is grudged to the few. We consider it both unfair and wholly unsatisfactory that a school should profess to give facilities for the study of Greek and then in fact leave keen youngsters to struggle along almost unaided at the back of another class. There is a time to forget numbers and remember quality; and so far from being wastefully used the periods given to enable even one or two gifted pupils to learn Greek will in the end give a good return.

(2) WIDESPREAD TEACHING OF LATIN

371. It will be evident that we concede to a classical education carried to university level many of the merits claimed for it; and we are in no doubt as to the great value of such a training for minds of high quality. But the real problem lies elsewhere. It is not how to justify the teaching of classics to the gifted few, but how to defend the

inclusion of Latin in the curriculum of the many ordinary boys and girls who will go but a little way and that with difficulty.

372. We submit that some of the more ardent protagonists of Latin have not always helped their own cause. They have rested the case for Latin on its value as formal mental discipline, clinging to a doctrine of "transfer of training" which no longer commends itself to the dispassionate investigator. They have made claims for Latin in connection with the study of English which are so grossly overstated as to be self-discrediting. They have catalogued the indisputable rewards of finished classical scholarship and then calmly attached them to that halting and truncated study of Latin with which the schools are all too familiar. Some have even sought to silence honest misgivings by the assurance that "no boy was ever the worse for three or four years of Latin" - a reflection which does equal despite to the dignity of classics and to the preciousness of school time.

373. We feel that the case against the widespread teaching of Latin is formidable and merits a more fundamental reply than is usually forthcoming. Stripped of irrelevances the issue is this - are we justified in devoting to the study of a classical language a fifth of all the time ordinary secondary pupils have available for bookish subjects?

374. We are satisfied that such a claim will never be established on any incidental benefits of Latin study whether real or alleged. To the supposed training value as commonly stated we attach little credence. Similarly, if there were no more in question than the real but limited help Latin affords in the study of English and other subjects, it would be arguable that the direct additional allocation to these studies of far less time than Latin requires would give a much better return.

375. The crucial questions are these. Can we, with a period a day for four years, give pupils of good average parts a real contact with and interest in Latin literature, and some understanding of classical history and civilization? And are these fruits of Latin study not merely benefits but benefits at least as great as any that could accrue to young people, were the time given to Latin used in other ways? We are convinced that, unless these two questions can be answered in the affirmative, the next generation will see a progressive shrinkage in the place occupied by Latin in the secondary school curriculum.

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376. No such affirmative answers could honestly be given in support of the kind of Latin course boys and girls are following in most Scottish schools today. On what does the pupil who has taken Lower Latin in the Senior Leaving Certificate look back? On an expenditure of some six or seven hundred hours, about half of which have been devoted to the learning of grammatical forms, the memorising of words and rules and the turning of many hundreds of English sentences - into Latin. The rest has gone on the reading of Latin, mostly of a military or narrative cast, often in short disconnected extracts drawn from a narrow range of authors and treated with no more than incidental reference to ancient life and history. To suggest that the run of such pupils have any real mastery of the language, any connected picture of Roman life and history or any sense of having

reached an objective is to fly in the face of the facts. The naked dullness of the course is well symbolised in the Lower Latin paper itself - two prose unseen, a set of detached sentences and some snippets of grammar.

377. If we do not yet despair of Latin for ordinary boys and girls, it is because we believe that the present dreary programme can be radically changed and that the time is ripe for doing so. Leaving aside for the moment the few who will pursue classical studies to university level, we indicate the lines on which we think un specialised Latin study should proceed during the School Certificate years.

378. The study of Latin should normally be confined to the A and B pupils (i.e. to the third of the age group whose intelligence quotients range from about 108 upwards). The sufficient ground for this limitation is not that Latin is wholly worthless for pupils below this level but simply that there are more valuable ways of using their time.

(3) COURSES IN LATIN

379. Latin courses should be planned for a minimum of four years, and pupils should not as a rule be encouraged to enter on the study of a classical language unless there is a reasonable hope that they will complete the School Certificate stage. To justify shorter courses requires a faith in the training value of Latin, which we do not share. This recommendation does not, of course, rule out the teaching of Latin in a three-year school which normally passes on some of its pupils to more advanced studies elsewhere.

380. The first year of Latin needs little change. Sound and interesting courses are available, which provide for the systematic learning of necessary forms and basic vocabulary, together with practice in the turning of easy sentences into Latin. The simple reading material usually gives a first introduction to Roman legend and history. But the main objective in the first year is a thorough mastery of the essentials of accidence, and, provided the teacher imparts some vigour and liveliness to his class-drill, this can be attained without undue difficulty.

381. From the second year onward, however, the course, in our opinion, requires radical alteration. The teaching should have a twofold aim: to give the maximum ability to read and understand Latin, and to present a simple but connected account of the main course of Greek and Roman history, with some appreciation of what classical civilisation achieved and of our debt to it.

382. Such a programme leaves no room for that systematic practice in written composition, whether of sentences or of continuous prose, which has till now absorbed from a third to two-fifths of all the time given to the study of

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Latin. We believe that in general this time has been ill spent, yielding on return sufficient to compensate for the curtailment of reading and the almost complete exclusion of *realien* which it involves.

383. Accordingly we recommend that ability to turn into Latin the familiar array of simple and complex sentences be no longer required of pupils at School Certificate stage. We wish the Latin teacher left free to give just as much or as little sentence-drill as his experience proves to be useful for the grasp of essential syntax and the understanding of Latin. Such drill can be carried through, much of it orally, with a very limited vocabulary and at no great cost in time.

(a) Translation

384. Translation from Latin is beset by two major problems - (1) the inherent difficulty of the process for all but the most gifted of pupils, and (2) the dearth of suitable reading material for young students.

(i) The Inherent Difficulty of the Process

385. There need be no fear of making translation too easy: even if every difficulty of vocabulary were removed, it is still hard for children to cope with word order, syntactic usage and above all with the periodic structure of the Latin sentence. We suggest, therefore, that classical teachers take thought how they can ease the burden and increase the pace of reading in Latin. Is there any reason why the rarer words should not be given in footnotes, or lists of them in the order of the text be compiled and supplied to the pupil? Were this done, the Latin teacher would be in a much stronger position to demand a real effort to master those relatively frequent words the learning of which is a condition of steady progress in Latin reading.

386. Some grammatical study there must be, but we hope that, with the demands of prose composition out of the way, there will be much less use of the Latin text as a peg on which to hang continual discussion of grammatical detail. It is possible to do justice to the form and yet to remember what much Latin teaching has ignored, that we read books primarily for their content.

387. It were excess of optimism to hint that there may still await discovery some method of approach to Latin reading that will give an easier mastery of its many difficulties. Nevertheless, there is room for experiment even here, and we suggest in particular that Scots teachers might consider what success American schools have had with the Hale Method, which substitutes for our very analytical attack on the Latin period an effort at direct comprehension as the pupil reads. Nothing should be ruled out - except dogmatic complacency.

(ii) Dearth of Suitable Reading Material

388. The difficulty of finding Latin reading of moderate hardness and high intrinsic interest is a commonplace; but as Professor J. S. Phillimore* pointed out nearly forty years ago, the problem has been aggravated by the prim narrowness of our canon and by a ridiculous preoccupation with prose composition.

189. It is strangely inconsistent to base the case for Latin on an unbroken tradition from Ennius to Erasmus, and then to confine pupils' reading to a few

*Introduction to "Latin of the Empire", by Gillies and Cumming.

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names within a single brief period. Caesar, Livy, Nepos - just how much outside these three does the average Lower Latin candidate ever read? And yet there is a world of material inviting judicious selection (and, if need be, simplification) in Pliny and Seneca, Ovid and Martial, in the Fathers and the Latin Vulgate, in the Hymns, the Chronicles and Erasmus. There is much room for innovation here, and we urge classical teachers to get together and make up anthologies of Latin passages, with a catholicity of taste as wide as the whole sweep of Latin writing.

390. We are not for a moment suggesting that the Latin of the great classical period be set aside. So far as it is suitable in difficulty and content, it will always have the first claim; but no merely conventional ideas or supposed requirements of prose composition should confine the schools to what is either dull or unnecessarily hard, when lively material of much less difficulty is available.

(b) Knowledge of the Ancient World

391. The good teacher will always impart considerable background knowledge of the Roman world in the actual reading of texts, but the evidence is conclusive that this is not nearly enough. We hold that the main business of the classical teacher is to convey to boys and girls who will at best have "small Latin and less Greek", an adequate picture of that ancient world which has so largely determined the shape and spirit of our own. To this end the study of Latin or Greek is a means, but not the only one.

(c) Greek and Roman History

392. During the second and third years there should be systematic teaching of Greek and Roman history. In the preface to his "Roman Commonwealth", the Headmaster of Harrow justified the large amount of space devoted to Greek history in a book about Rome by pointing out that the ancient Mediterranean civilisation was essentially one and that a large part of the significance of Rome is as the transmitter or mediator of Hellenic culture. We think this a sound view and strongly recommend the inclusion of Greek history as well as Roman.

393. Such teaching of ancient history need not be chronological and formalised. It should rather be a treatment of topics designed to give young people not a large mass of factual information but a clear idea of the distinctive values of Greek and Roman culture, and some insight into those familiar problems of national and inter-national life which emerged and had to be faced within the simpler setting of the Graeco-Roman world. But we think that the teaching of classical background should include much more than history in the stricter sense. Especially during the last three or four terms of a School Certificate course, pupils should be invited to consider with the teacher how the Romans (or the Greeks) reacted to various aspects of human experience: what feeling had they for nature and scenic beauty; what place did they give to women and children; what was the nature of classical humour, or the quality of their patriotism; were they generous in public life and tolerant in private; what conclusions about them can we draw from the work of their hands; and so on.

With this kind of teaching about the Greeks and Romans the schools have scarcely made a beginning, so busy have they been with the niceties of syntax and the impossible demands of composition.

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(4) USE OF TRANSLATIONS

394. Almost inexplicable is the failure of classical teaching to make sensible use of translations. We refer to this in connection with modern languages, but it is even more puzzling in Latin and Greek where the difficulty of reading in the original and the small amount of ground covered make it doubly necessary to supplement it with wide and wisely directed study of the classics in English. A translation, we are told, gives little or nothing of the original and is largely useless. We reject this view as perverse and exaggerated. In poetry much is lost, but by no means all, as is evident from a study of the Oxford Book of Greek Verse in English, while prose well rendered yields almost all its content and something of the characteristic excellence of its form. If this be doubted, a masterpiece like Cornford's "Republic" is a vindication of the claim in perhaps the hardest case of all. But the general refutation of the uselessness of translation lies in the fact that no one applies this despairing doctrine to German or Russian or the Scandinavian languages, or seriously suggests that in regard to Goethe or Tolstoi or Ibsen there is no midway between complete ignorance and the full understanding which comes from mastery of the original text.

395. We should like to see what a good classical teacher could do, given a group of intelligent boys three times a week and armed only with Rieu's "Odyssey", Cornford's "Republic", a few of Gilbert Murray's translations of Greek plays, and Mackall's "Selections from the Greek Anthology". It might be found at the year's end that they had acquired a juster sense of the Hellenic genius than sometimes rewards the toilsome labour of the Greek classroom.

396. We have dwelt on the use of translations, because, whatever the intransigent classic may feel, the schools cannot afford the heroics of the all-or-nothing attitude. If the modern world is to be kept alive to the abiding interest and appositeness of classical culture, it is for those who know and love the ancient languages to use every device for passing on something of their riches, not rejecting the opportunities of the twentieth century because they cannot recreate the conditions of the eighteenth.

(5) FUNCTION OF THE CLASSICAL TEACHER

397. Such an approach to the classics as we have been advocating implies a major change in the function of the classical teacher and in the relative positions of Latin and Greek. It will be plain now why we recommended that every secondary school should have a classical honours graduate on its staff. We hope to see him using his scholarship as interpreter to a whole school of the two great civilisations - not doomed, as so many have long been, to pass his days almost wholly within a round of quite elementary Latin teaching. We believe that with this wider conception of their function classically trained men and women will exercise a much more varied

and potent influence in the schools. They will, as always, do good work with the few who have it in them to become classical students; they will give a better service to the average boy by combining the teaching of one or other classical language with a wide and stimulating treatment of the ancient civilisation as a whole; and through courses in Greek and Roman history their influence may extend to many who will never enter on the formal study of the classics. In the VIth Form particularly, such teaching may be of the utmost value to boys and girls whose days are largely given over to scientific and practical studies.

(6) STUDY OF GREEK

398. It follows from our whole attitude towards the teaching of classics that we attach especial value to the study of Greek, and we suggest that where

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only one classical language can be taken up the claims of Greek should be carefully weighed against those of Latin. The suggestion has been made from time to time; but, so long as the doctrine of mental training remained unshaken and great stress was laid on the secondary advantages of Latin, it seemed a little freakish and unreal. But, if we are right in holding that in the end the inclusion of a classical language can be justified only on its intrinsic merits - the interest of its study, the range and excellence of its literature and the value of the culture it enshrines - then the case for Greek becomes very strong. Moreover, it has a great advantage over Latin in the availability of reading material of moderate difficulty and superlative quality. While, therefore, we do not expect any landslide away from Latin, we recommend that, where staffing allows, it should be possible to take Greek as a first or sole classical language.

(7) CONTINUED INTEREST AFTER SCHOOLDAYS

399. How far this unspecialised classical education we have been outlining would produce the fruits of continued interest in Greece and Rome once schooldays were past, we cannot profess to know; but at the lowest it could not fail so dismally as the present system does with thousands of boys and girls who devote four or five years to the almost unrelieved linguistic study of Latin. They leave school with virtually no knowledge of Roman history and life, bored with the endless round of proses and unseens and determined never to open a Latin book again.

400. No magic will ever enable pupils to read Latin or Greek freely at the end of a School Certificate course; but with such a training as we advocate they might combine a limited power of reading a classical language with a considerable store of knowledge about the Greeks and Romans and some idea of the sources from which more is to be learned. Is it too much to hope that some at least might go on, not to become classical scholars, but to take down a Loeb, Virgil or Homer, a Terence or a Herodotus once in a while? What they would get from it would be much less than the full reward of scholarship, but it would be much more than a wise man would willingly forego.

(8) CONCLUSION

401. We do not feel it necessary to speak at length of the kind of training appropriate for those who have the ability and the intention to carry the study of classics to a high level. As in other subjects, the traditional ways suit them much better than their less gifted fellows, and they do benefit from certain disciplines which the others find unprofitable and dull. But even for the able minority the present classical course is open to the double objection that it neglects ancient history and much overdoes the practice of prose composition. We think that the rendering of anything but the simplest continuous English into Latin or Greek, and similarly the translation of highly idiomatic sentences, belong to the university stage. Accordingly, while we take for granted a good standard in classics at the Higher School Certificate, we recommend (1) that the demands in composition should be very moderately pitched, and (2) that general questions on ancient history and civilisation be included, with a sufficient allowance of marks to make it evident that they constitute an important part of the tests.

402. We are convinced that the position of classics in Scottish schools is indeed precarious, though not always for the reasons adduced by their defenders. If we propose great changes in the teaching of Latin, it is because we believe

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that at present the subject is dead for a majority of those who take it, and that, unless it is revitalised, it may in the absence of compulsion go the way of Greek and within a decade be deserted by all but a few.

6. Modern Languages

403. In a memorandum issued in 1907 the Scottish Education Department made this remarkable pronouncement; "The knowledge of a language other than the mother tongue is not a necessary part of the equipment of an educated mind." In Chapter V we made clear our unqualified acceptance of this view and our equally strong conviction that it does not detract in the least from the great value of language learning for those who are able to profit by it.

404. In considering the place of modern languages in the secondary school we have tried to answer these questions:

- (a) What languages should be taught and what are the aims in teaching them?
- (b) How should they be taught?
- (c) To what proportion of pupils can they be taught?

The questions are, of course, intertwined, but it is convenient to take them in the order given.

(1) WHAT LANGUAGES SHOULD BE TAUGHT?

405. Never in history have men been more conscious of the need for international understanding and of the extent to which differences of language may be a barrier to it. Yet, to clear thinking it is evident that a complete cure for Babel must come not by futile attempts to fill the world with polyglots but by the agreed adoption of a common tongue for international communication, whether it be some simplification of

a natural language or one of artificial construction. But, short of that heroic step, we could as a nation ensure one thing - that over the country as a whole each main language was understood and spoken by considerable groups of our people. At the moment we are very far from realising that aim. Our secondary schools instruct a large number of boys and girls in French, a very limited number in German, a mere handful in Spanish, and there the matter ends.

406. On international grounds the virtual monopoly of French is as unwarranted as the neglect of other dominant tongues is deplorable, and we submit that the other reasons for learning languages strengthen rather than weaken the case for a much wider and more even spread of language teaching. The qualities that commend any particular language we take to be three - (1) that it expresses a noble culture in an extensive literature suitable for young minds; (2) that it is easy to acquire; and (3) that it is of practical use.

407. It seems to us that the extreme claims for French rest on an exaggerated emphasis on (1) and a minimising of (2) and (3). Few would dispute that of all nations France has made the largest single contribution to European culture and the one that has most profoundly influenced our own. But it is easy to forget that the point at issue is not what a consummate scholar will gain from one culture as against another, but rather what fragments ordinary folk will carry away, and surely the truth is that each of the main European literatures enshrines a civilisation so great that the ungifted will assimilate but a fraction of it. Hence any one of the languages is the key to riches far

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beyond our using. Moreover, we must set against the exceptional merits of French literature the sophistication and the strain of sentiment that make some of it not wholly suitable for young students.

408. We conclude, therefore, that on cultural grounds French would secure a high but not an exclusive place, even if it were conceding no advantage to any rival under heads (2) and (3). But even its strongest advocates hardly contend that it matches Spanish and Italian in ease of acquisition, or Russian and Spanish in utility. Admittedly, all languages alike are hard at the higher levels of scholarship, but what concerns us here is that in spelling and accents, in intonation and above all perhaps in its peculiarly idiomatic texture, French presents unusual difficulty at the earlier stage, and that in consequence young students of ordinary ability do not make the progress or enjoy the sense' of achievement that are possible in Spanish or Italian, and to a less degree in German.

409. Great as are the claims of Russian on cultural and practical grounds, our evidence is definite that the language is difficult and that younger secondary pupils would make little progress in it, unless conditions could be created for them almost equivalent to prolonged residence among Russian-speaking people.

410. When all the criteria are taken together, Spanish has, in our opinion, clear title to a much more important place in the secondary

school than has been accorded to it, and we anticipate a steady growth in its popularity.

411. To sum up, we are satisfied that the primary need is for a considerably wider provision of language teaching in our secondary schools, in the sense that while relatively few pupils might study more than one and few schools offer more than two or three, the country as a whole would be recognising the importance of all the principal European languages and giving knowledge of them to large numbers of people. These groups would be focal points of interest in the civilisations of the languages they knew and interpreters to their fellow nationals of the characteristics of some one member of the European family. We count it of good omen that this policy is strongly supported by the Association of Directors of Education.

412. Within this wider scheme French would still occupy a prominent place, especially for such pupils as were to carry their language studies to university level, but that place should be something much less than the present almost exclusive possession. In particular, the strong claims of German for prospective science students should be much more widely admitted, while for the mass of average pupils whose language studies are to be neither profound nor prolonged, we believe that Spanish will be more and more recognised as on the whole the most satisfactory choice.

413. The ethnological, cultural and commercial associations of particular areas may justify the provision of teaching in languages that have hitherto lain outside the orbit of the schools, e.g. Aberdeen and the East Coast might well find a place in certain schools for one or more of the Scandinavian tongues.

414. We realise that the problem of finding suitably qualified teachers precludes rapid, large-scale change in the incidence of language teaching; but it is important that a start be made, and progress should not be slowed by a too finicking insistence on academic qualifications which cannot in general be forthcoming in the immediate future.

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(2) HOW SHOULD LANGUAGES BE TAUGHT?

415. To the vexed question - How should languages be taught? Our witnesses are emphatic in reply that it must be in ways very different from the present practice of the schools.

416. We have made a fetish of the power to write formal compositions in the foreign language, with its inevitable concomitant of close grammatical study; and so, for the shadow of an accomplishment as generally useless as it is excessively difficult, we have sacrificed the substance of two good and quite attainable things - the ability to read the language and to speak it simply. Such unwisdom is hard to account for, until one compares a Senior Leaving Certificate French paper with its Latin counterpart and notes how close is the correspondence between them. Conformity to the long established classical modes was the price French and German had finally to pay for entree to the best educational circles, and the price has been disastrously high.

417. Fortunately, there is almost complete unanimity about the urgency of reform and the direction it should take; and, in fairness to the Scottish Education Department, it should be said that its own memorandum M143, issued on the very eve of war in 1939, laid down the principles of modern language teaching with such sanity and enlightenment that it remains only to translate them into practice.

418. The learning of a foreign language must start, as did the native one, in aural comprehension of the spoken tongue. This means training pupils to listen and to reproduce the sounds and words, with sensible use of the phonetic symbols and early recourse to simultaneous reading as a respite from the strain of unrelieved speaking of the foreign tongue in the class-room. Once pupils can pronounce, they should be taught to read from the printed page orally. The ability to read by looking comes later, and the need for intensive oral training persists throughout the first year.

419. An extensive course of reading, beginning with specially simplified material, should lead to increasing understanding of ordinary narrative and conversation. The subject matter can be lively and informative, without being trivial, and grammatical explanation should be introduced simply as required. As the course proceeds, there should be constant reference to the cultural background, the pupil's interest being more and more engaged in the life and customs of the people whose language he is studying.

420. It will be seen how far removed this teaching for comprehension and oral use is from the familiar alternation of "translation from" and "translation into".

421. In the early stages of a foreign language course some limited use of translation, or more correctly of a "construe", is no doubt necessary as a check on understanding, but what is not sufficiently realised is that the continued and continual use of this device becomes in due course a check to understanding, for the child's comprehension of what he is reading is constantly being arrested by the necessity of finding supposed English equivalents.

422. Again, when a high degree of proficiency in a language has been acquired, translation becomes an admirable exercise for able students, but it implies a large command of both languages and a sensitiveness to functional equivalence and shades of meaning that are denied to all but the talented. To demand such an intellectual activity from ordinary pupils with a very limited mastery of the foreign tongue serves only to corrupt the use of their

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own by habituating them to a jargon that has no existence outside the mistaken routine of the class-room. If it be asked how one is to test the pupil's understanding of a passage otherwise than by translation, the obvious answer is by questioning him on it and having him state its substance either in English or, at a more advanced stage, in the language studied.

423. Nothing but the immemorial practice of composing into Latin and Greek could have blinded us to the unnaturalness of the kind of composition we have been wont to require in modern languages. Such

exercises may be a proper part of the advanced study of a language, but for young students they are condemned as much by their uselessness as by their extreme difficulty and the vast expenditure of time and energy they involve. At worst - as every examiner knows - they are a farrago of nonsense and grammatical confusion; at best, a pastiche of idiomatic tags culled mainly from text-books and reproduced by an effort of memory.

424. It must not be thought, however, that in condemning "synthetic" composition we envisage lengthy courses in a language, with no writing of it at all. That would never happen. There is evidence that, if children are well taught on the lines we have sketched, a time comes when they want to write French or Spanish and experience the liveliest pleasure in exercising their ability to do so. But such writing is an unforced use of vocabulary, forms and turns of expression which they have learned in living contexts, employed to convey ideas that are either their own or congenial to their age and experience. Such "composition", as it were, flows from the pupil and is as agreeable as the other is distasteful.

425. In this brief discussion of teaching method, we have not attempted to disjoin the two alms of learning to read and learning to speak, for our witnesses have told us that they must go together. Because the ability to read is so much the most easily attainable and the most precious reward for a limited study of a language, some of us were minded to propose that it should be sought directly and with an economy of effort that excluded speaking as well as writing. Experienced teachers have convinced us, however, that, while such an approach is feasible for the adult, especially in the learning of a second or a third foreign language, it would be psychologically quite unreal for young students. To a child a language is never primarily something to read but always something to hear and speak: hence, even if the goal be reading ability, it must be reached by the way of oral and aural practice that we have described. We record this conclusion, because others may, like ourselves, have failed to appreciate that this is essentially a case in which the young beginner at least must get "to Paradise by way of Kensal Green".

426. The question whether this less formal approach to language learning would suffice for all types up to School Certificate stage we answer in the affirmative, being assured that the systematic study of syntax and composition could be covered by specialised work in the VIth Form. A reading of the last paragraph of M143 suggests that even in 1939 the mind of the Scottish Education Department had already moved far in that direction.

427. It is obvious that such revolutionary changes in the method and content of language teaching imply a complete departure from the traditional requirements of the Senior Leaving Certificate, with its excessive emphasis on translation and composition, its scant attention to comprehension and oral proficiency and its neglect of the cultural background. While the new School Certificate will not be awarded on external examination, we think it wise to

indicate briefly the factors of which account should be taken in any general assessment of a four years' course in a modern language.

(1) Oral and aural proficiency should be thoroughly tested and the weight given to it such as to reflect its prime importance in modern language study.

(2) Power of comprehension should be carefully assessed, but the best forms of test can be determined only in the light of experience as this side of the work is more fully developed. At School Certificate stage the answers should probably be in English.

(3) The Scottish Education Department should ensure that due attention is paid to the history, culture and life of the people whose language is being studied. This background knowledge might form material for oral practice and testing.

(4) Translation from the foreign language should bulk less large, and the rendering of poetry into English should not in general be expected at this stage, though passages of narrative verse, if not too heavy in vocabulary, might prove suitable for tests of comprehension.

(5) Neither set compositions nor sentences of an elaborate kind should be a compulsory part of any School Certificate syllabus in a modern language.

428. We draw attention to the extreme importance of securing a good start in a modern language. It follows that only able teachers should be allowed to take beginners' classes and that, wherever possible, the Ist and IInd Years at least should be treated as "practical classes" and the numbers limited to about twenty.

429. We are satisfied that wireless and the gramophone (especially if teachers can secure the production of records wholly suitable in content) have a fruitful part to play in the teaching of modern languages, and education authorities should grudge the provision of such aids as little as they do the proper equipment of the laboratories. The same reminder applies to the supplying of maps, pictures and other material illustrative of the history and culture of countries studied. One useful form of such material would be good translations of a large number of works of literary merit for use by the pupils. It is astonishing how rarely in either ancient or modern language study the necessarily limited reading of texts in the original is supplemented by the sensible use of translations.

(3) TO WHAT PROPORTION OF PUPILS CAN LANGUAGES BE TAUGHT?

430. We have carefully considered whether, with changed methods and objectives, the teaching of a modern language could be extended to a bigger proportion of secondary pupils, but have been unable to reach a firm conclusion. It seems clear that a good many of the boys and girls in senior secondary schools who are attempting a language might be better employed, and our witnesses did not encourage the belief that many short-course pupils who could profit by language

study are denied it. On the other hand, it has been put to us that some of the abler youngsters in junior secondary schools themselves feel that in a non-language course they are missing something they would have enjoyed. One would not lightly disregard such a feeling, but there is the restraining thought that to indulge the wish for a language may mean excluding from the schooling of these children something else which would have proved of more solid worth to them. We think there is room for experi-

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ment here in regard to the better C's at least, and we recommend that headmasters should be free to try such pupils with simple Spanish or French.

431. There is general agreement that, unless for boys and girls of marked ability, one foreign language is enough at School Certificate stage.

432. French teachers and Latin teachers are united in thinking that only one foreign language should be begun at the outset of a secondary course. They are equally certain that to postpone their own subject till the IInd Year is to ruin it. If the difficulties of timetable and staffing can be got over, it seems as if the able minority who are to take two languages might begin with one and add the other at the end of a half-session.

433. We suggested in an earlier chapter of this Report that the VIth Form should give a big place to language work, and we would emphasise that this stage should be marked not merely by the greater range of languages studied but by much variety of approach. There would, of course, be provision for the continuance and consolidation of language study already carried to School Certificate level. Some will wish to begin a language for the first time, others to add a second or a third. A School Certificate pass may be the objective in one case, a purely reading knowledge (possible now for the sixteen year old) in another, while a third may concentrate on conversational command of the language, with little reference to literary texts. It is obvious that radio and gramophone will figure largely in such language learning, and we hope that a predilection for the more orthodox textbook will not rule out the use by senior pupils of some of the excellent little manuals built up, like Basic English, on scientific study of word frequency and essential syntactic usage. The use of such books may well mean an economy of time.

434. We recommend that every encouragement be given to the study of Russian at this stage. What was impossible with ordinary pupils of twelve or thirteen because of the difficulty of the language becomes relatively easy with selected boys and girls of sixteen or more; and, unless we ensure that a due proportion of our able senior pupils, destined for commerce, technology or administration, are given a working knowledge of the principal language of the U.S.S.R., we shall be guilty of inexcusable blindness to the realities of the world situation.

435. To allay a very natural concern, we express our belief that much of this varied VIth Form language study need not make heavy

demands on teaching time: indeed, we go further and say that, unless ample room is left for pupil initiative and self-help, a great deal of the distinctive merit of Vith Form work will be lost.

436. As the fitting crown to language study at the top of the school, we strongly recommend that education authorities should make it possible for able boys and girls who have made good progress in a language to have a term's residence abroad, but always under conditions which ensure their entering into the normal life of the country and continually hearing and speaking its language.

(4) GAELIC

437. Where pupils enter the secondary school already able to speak Gaelic, the systematic study of that language is, we believe, the best linguistic training that can be offered them. They can look to attain in it a proficiency far greater than would reward a corresponding attention to French or Spanish;

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and they have the key to a literature which, since it enshrines the experience of their own race, will come home to them with an intimacy of appeal no other could rival.

438. Every secondary school in a Gaelic-speaking area ought, therefore, to have a fully qualified teacher of the language on its staff, and facilities for the study of Gaelic either alone or in conjunction with Latin should always be available. There should not, however, be an indirect compulsion to take Gaelic, arising from the denial of the opportunity to study any other foreign language.

439. We further recommend that in large centres, where there is a considerable population of Celtic origin, facilities for learning Gaelic should be available in one school at least.

440; But we cannot support the claim of An Comunn Gaidhealach that Gaelic should have complete parity with other foreign languages in all the secondary schools of Scotland. Even were it possible to find all the specialist teachers required - and no one knows better than An Comunn how wildly impossible it would be within any measurable period - we think the position untenable for the following reasons:

- (1) For the pupil with no previous knowledge, Gaelic is not easier but much harder than the romance languages; indeed we are told that to reach even the Lower Standard in the Senior Leaving Certificate would mean five years of very hard work, except for the most gifted.
- (2) The utility value of Gaelic is not high.
- (3) While Gaelic Literature is rich in appeal for those to whom it is native, it could hardly be claimed that it has either the sustained greatness or the immense range and volume of the European Literatures.

7. Mathematics

441. We are in no doubt that Mathematics in Scottish schools needs a drastic overhaul. On that our witnesses were agreed; they differed

only as to the precise degree of change desirable for different categories of pupils.

442. There has, of course, been some modification of content and method in the past twenty years, but the changes have been either insufficient or too narrowly applied. The existing teaching of Mathematics is least unsatisfactory with the strongest pupils and the weakest - with the former, because they are best able to cope with the pure and formal presentation of Mathematics traditional in Scotland; with the latter, because they proved so manifestly unequal to it that the schools have already been forced to abandon the old ways and to devise new courses which in their simplicity and realism take account of the needs and limitations of the pupils in question.

443. It is the great central mass of boys and girls, ranging from the weak C's well up into the B group, who have fared badly, and the dullness and futility of much school teaching of the subject has been thrown into relief by the remarkable interest shown and progress made by many of these same pupils in the mathematical work of the Air Training Corps.

444. While the schools are not blameless, much responsibility in this matter rests with the Scottish Education Department, for the nature of the Leaving Certificate papers in Mathematics has made it very difficult for the schools to break with a formal and academic treatment of the subject; nor

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have the short-course schools found in the Department's "Note as to Mathematics" a charter of emancipation and a mandate to experiment.

(1) PROVISION FOR D, E AND THE WEAK C PUPILS

445. The provision for weak C's and the D and E pupils need not detain us long. There is general agreement as to what is possible for them, and, as we have said, the schools are already evolving modest, practical courses suited to their capacity. Little Mathematics can be required of these pupils beyond simple, everyday arithmetic, easy mensuration and the veriest elements of graphical work - with the immediate usefulness of what is being done evident at all times.

446. Arithmetic should be treated throughout as a "tool" subject, and, once research has determined the best methods, mechanical operations should be standardised over the whole country. The content of the arithmetic should be drawn from the familiar life of home, work and community, and weak pupils should never be forced beyond their powers. Accuracy in calculation and that very precious thing, a sense of achievement, are more likely to be got from abundant practice on easy examples than from laborious efforts on more difficult material.

447. Instruments and scissors should be used for simple mensuration and the making of models. It may be, however, that for these D and E pupils some idea of shape and symmetry will be secured less by direct training in geometry than from technical subjects, art or dressmaking. But if, as common-sense suggests, the work of such pupils is

entrusted to only one or two teachers, there will be a considerable and very advantageous fusing of subject-contents.

448. Pupils should be shown how to use tables of the ready-reckoner type, while attendance returns, class savings, results of team matches and other familiar data may allow of simple graphical teaching and understanding.

449. On the whole, our witnesses were against any major differentiation of courses for boys and girls at this very humble level.

450. Lastly, with these children of limited powers, formal examinations should be replaced by frequent diagnostic tests, for progress depends on early discovery of the point at which the individual's difficulties or weaknesses emerge.

(2) PROVISION FOR THE BETTER C AND THE MAJORITY OF THE B PUPILS

451. When we turn to the intelligence range represented by the able pupils of the junior and the average pupils of the senior secondary school, i.e. the better C's and most of the B's, the criticism of our school Mathematics is severe. It is, we are told, divorced from reality, turned in on itself and far too much pre-occupied with these virtues of formal correctness and logical sequence which are peculiarly devoid of appeal to ordinary youngsters. Hence the lack of interest in much of what is studied and the widespread feeling that it is an irksome waste of time.

452. We set out now in detail the main points of criticism and our recommendations for reform.

(a) Geometry

453. The demands in formal plane geometry are excessive at every stage. Even for a three-year course, the Department's "Note as to Mathematics"

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requires some 60 formal proofs, while the full Senior Leaving Certificate programme involves over 120 theorems. It is sad to think of the time and energy dissipated on the memorising (for such it largely is) and regurgitation of this mass of bookwork. The Spens Report* remarked with truth of a less terrifying list: "Only very few of the 'propositions' usually learnt have any importance, except for the development of a logical sequence." One experienced witness claims that only 20-30 of all the Leaving Certificate theorems have any application in pure or applied science, while another has suggested a reduction of the list to about 24. The new Cambridge School Certificate syllabus requires formal proofs of only 16 theorems. With the radically changed view of the place of formal geometry expressed in these judgments we are in general agreement. Admittedly the Euclidean proof is one of the high achievements of the human mind, and we consider that all pupils of the requisite intelligence should be introduced to it. But surely, for under sixteens at least, it must be a tasting by sample, not the imposition of an unrelieved diet. Moreover, the "samples" must not be forced on the pupil too soon. To introduce

certain things prematurely is to waste time: there is often true economy in waiting a little. A teacher of wide experience, stressing the necessity for much measurement with instruments, much practical familiarity with spatial relationships before any geometrical reasoning begins, put the point to us strikingly - "A boy should never be asked to prove a theorem till he knows intuitively that it is true."

454. We recommend -

(1) That in a three-year course there should be no insistence on formal geometrical proofs at all; and

(2) That in no School Certificate course should the number of such proofs required exceed twenty-five; and that this more formal work should in all cases be preceded by a great deal of practical geometry and empirical proof.

(b) Algebra

455. The present content of school algebra is understandable only on the assumption that the chief end of mathematical teaching is manipulative skill. How else explain the extent to which elaborate simplifications of fractions, the manipulation of purely artificial factors, exercises on simultaneous quadratics, theory of quadratics, surds and the remainder theorem occupy the pupils' time and the Department's examination papers? Scarcely any of this arises out of natural data, and there is the same objection to the many made-up trigonometrical equations that have no root in reality. Nor is the uselessness of such exercises redeemed by their being rich in interest: on the contrary, they are for most boys and girls exceedingly dull.

456. We agree that there must be some manipulative practice on simple material, but our evidence is conclusive that the curriculum is at present choked with such "exercises in pure technique", and we recommend that the manipulative work be drastically simplified in type and reduced in amount. A two-thirds shrinkage would not seem to us too great.

(3) DIVISION INTO BRANCHES OR SUBJECTS

457. Another symptom of our excessive preoccupation with the inner ordering of mathematical truth as against the application of it to the real world is the almost invariable practice of teachers and textbooks of dividing

*See footnote to paragraph 102.

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Mathematics into branches or subjects. This may be congenial to the mathematical thinker, but its pedagogic effects are bad. It breaks up the concrete unity of the real, obscures relationships by treating connected ideas in isolation, overloads certain branches of the subject and delays too long the introduction of others that are of singular interest and practical importance

458. By contrast, it is noteworthy that when a man sits down to make a textbook for students of Mathematics *in action*, he tends to produce not a Geometry or an Algebra or an Arithmetic, but simply a "Mathematics for Technical Students". The same obsession with the logical to the neglect of the psychological shows in the unwillingness to depart from the traditional arrangement of topics. Yet it is obvious that, if the child's interest is to be engaged, he must see meaning not merely in what he is doing but in the order in which he is doing it, and that, as the Council for Curriculum Reform* points out, "If the order of topics is dictated by a remote mathematical or logical principle, the whole thing seems to him arbitrary."

459. Again, it should be kept constantly in mind that historically Mathematics has been the devising of improved or alternative tools for particular jobs. Hence it is bad to have the pupil linger any longer than he need on the use of inferior tools (e.g. to delay the introduction of logarithms, slide-rule and calculus), or to decree the use of a clumsier tool where he has a better (e.g. to make him find graphically a result he could get more easily by other means), or to rule out forms of valid proof that may seem to him easier or more congenial (as when the "Note as to Mathematics", in contrast to English practice, insists that the proofs of all the area propositions must be geometrical only).

(4) GENERAL CONTENT OF SCHOOL CERTIFICATE COURSE

460. But criticism of the existing curriculum in Mathematics is not confined to the otiose or unsuitable material it includes. It is directed no less vigorously to what is excluded or treated either too lightly or too late. We, therefore, proceed to indicate what, from a consideration of our evidence, we think the general content of a School Certificate course should be.

461. The time saved by excluding the bulk of formal geometry should be devoted to a thorough training in mensuration and technical drawing - with paper, simple instruments and drawing boards, all of good quality. This should familiarise the pupil with the fundamental ideas of similarity and symmetry, should give him a working knowledge of spatial relations in general and an increasing ability to pass from concrete data to inductive reasoning, and, most important of all perhaps, should train him to see and think three-dimensionally. It is realised now that the dropping of solid geometry from the Leaving Certificate was a mistake: what should have been discarded was not the subject, excellent in itself, but that too rigid Euclidean treatment of it which made it impossibly hard for all but the mathematically gifted. We recommend that the subject be taught from the outset by the natural approach through the drawing board, the making and handling of solid models and through the relevant parts of trigonometry. Experience has shown that, treated in this practical way, solid geometry is well within the powers of average secondary pupils, and it is more than time we were rid of the reproach that a boy may pass out of school with a Higher Leaving Certificate pass in Mathematics, and encounter mechanics, optics, electricity and navigation without even having learned the relation of a line to a plane.

*"The Content of Education" p. 132.

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462. We have spoken of the time that can be saved by the ruthless curtailment of purely manipulative work in algebra, and we assume too that the treatment of factors and equations will be much less elaborate. It is doubtful if for most pupils the study of the last should go beyond the simultaneous equation, plus a graphical treatment of quadratics. What is vitally important and needs more time than it is receiving at present is practice in the handling of formulae, for we have clear evidence that many pupils cannot do this with speed and precision and find great difficulty in expressing the formula in terms of a new subject. This is a field of practice far more profitable than the abstract handling of equations, especially if the wise dictum of the Spens Report* is borne in mind "that from the start pupils should be trained to associate the formula and the results of any manipulation of the formula with the realities for which it stands, and the teaching should constantly refer back to these realities." Our general recommendation that arithmetic be taught as a "tool" subject does not preclude some treatment of the more mathematical aspects, which will always have their own interest for the able boy or girl.

463. When we spoke of things introduced too late, we had in mind especially logarithms, the use of the slide-rule and the elements of trigonometry, and we recommend that all three be introduced in the IIIrd Year, to ensure that pupils leaving at the statutory age shall, so far as they are capable of benefiting by it, have instruction in them.

464. The teaching of logarithms and the use of the slide-rule need not be theoretical: the important thing is sufficient practice to bring home to the boy "the ease and success with which they do the work they are called on to do."†

465. Similarly, the treatment of trigonometry should be very practical, commencing, as one witness put it, "where the subject began historically, that is in the solution of right-angled triangles, then on to the more general cases, leaving the formal parts of the work till later."

466. Again, much greater emphasis must be laid on graphical work. This has a twofold importance. First, it is vital to our well-being as a society that as many people as possible should appreciate the significance of statistical data and have some little ability to interpret them. Secondly, graphical work and the plotting of data lead naturally to one of the most fruitful of mathematical concepts, that of functionality or the dependence of one quantity on another. From the plotting of points the abler pupils might pass on to examine the behaviour of the function and try to form a mental picture of it, thus preparing the way for the introduction of calculus. For we are assured by expert witnesses that, with all the dead wood of algebra and geometry cleared away, able boys and girls would find room in a School Certificate course for the beginnings both of calculus and of analytical geometry.

467. The most startling evidence of our mathematical "purity", in contrast to the greater realism of English practice, is in the complete exclusion of mechanics from most of our five-year courses. Our evidence leaves us in no doubt that this has had a debilitating effect on Scottish teaching and accounts in some part for the failure of Mathematics to come alive for so many boys and girls, who, whether

we adults like it or not, have a healthy partiality for dealing with things that belong to a real world. It is not for us to suggest in advance of experience what parts of statics and dynamics should enter into

*P. 240 footnote. (See footnote to paragraph 102).

†Spens Report, p. 239. (See footnote to paragraph 102).

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the mathematical syllabus, but these subjects obviously offer natural fields for the application of geometry and trigonometry and for the construction and application of sensible formulae and equations.

468. Accordingly, we recommend that appropriate parts of elementary mechanics find a place in all School Certificate courses in Mathematics. We believe this will go far to vitalise Mathematics in the senior secondary school and secure from average pupils that lively interest which at present seems to attach to the subject only outside the day school. The short-course schools may find it advantageous to continue the arrangement by which certain parts of elementary mechanics fall rather into the technical subjects course. Apart from its educational justification, we hope that two important practical advantages will result from our recommendation that mechanics be given its natural place in the mathematical syllabus:

(1) That in future Scottish candidates will be on better terms with the Civil Service examiners who, strangely enough, remain unimpressed by our success in keeping school Mathematics unspotted from the world.

(2) The removal of one impediment at least to the entry of Scots lads into various training establishments, and, in particular, into what is among the finest apprenticeship centres in Europe, H.M. Dockyard at Rosyth. The handicap imposed by lack of instruction in applied mathematics has long been a hardship to the boys and a reproach to our secondary education. We realise that there are other reasons for the deplorably meagre recruitment of Scots boys to Rosyth, and we hope that early action will be taken to clear up the situation and to bring the great value of this training more effectively to the notice of our schools.

469. It will be evident that the scheme of School Certificate Mathematics we envisage bears considerable likeness to the new and very realistic syllabus for the Cambridge School Certificate, the main features of which are the severe curtailment of formal geometry, the emphasis on technical drawing, the encouragement to use instruments just as the practical man does to get his results. the employment of logarithms and slide-rule, the free use of tables, the practical reference of the questions, and above all the fusing of the mathematical subjects and the freedom given the candidate to get his result by any valid method that commends itself to him. Meantime this syllabus is alternative to a more traditional one, and we urge all concerned with the teaching of Mathematics in Scottish schools to give careful study to the Cambridge scheme.

(5) MATHEMATICAL LABORATORIES

470. It is clear that such reform of mathematical teaching as we recommend will be greatly furthered by the provision of what might best be described as mathematical laboratories, and in this we are confirmed by our witnesses.

471. The ordinary class-room is not adapted to the teaching of accurate drawing, to the storage of the requisite apparatus, or, in general, to the demonstration of Mathematics in action. Only experience can determine precisely what the equipment and function of the mathematical laboratory should be, but we give, as being of interest, the suggestions of one teacher who has long felt the need of such a room: "The laboratory should be equipped with drawing-boards and T squares, solid figures, verniers, micrometers, spherometers, slide-rules, pantographs, theodolite and sextant. Here the pupil should learn the decimal notation sensibly and concretely through the decimal ruler, vernier and micrometer; logarithms through the slide-rule; solid geometry through plans and elevations and drawing sections: trigonometry

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through the theodolite; and the meaning of area and volume through approximate valuations by Simpson's Rule." He adds a significant comment. "This should not be part of a 'technical' course but a course for everyone. The classical people are the very ones who need it."

472. The Council for Curriculum Reform,* recommending a mathematical museum for each school, suggests yet other functions for the practical room:

The museum envisaged is a large room devoted to charts and models designed to do what the text-book cannot do, viz. give a survey of a topic, reveal the relation to other topics, give a bird's-eye resume of a collection of topics, show the historical development of important symbols and concepts, express in solid models the third dimension and in working models the mathematical treatment of *time*. Many features of mathematics, intolerably difficult when spread over dozens of textbook pages, become clear when summarised and brought together on a single chart. An important section of the museum would show by an arrangement of tables, formulae, graphs, pictorial statistics, and photographs, the technical and social applications of mathematics. Another section would show the physical, chemical, and biological applications, including astronomy. Yet another would deal with aesthetics and architectural considerations. And a corner might be devoted to supplying the old-fashioned museum need for 'curios' i.e. mathematical puzzles and recreations.

473. We recommend that every sizable secondary school be provided with one or more mathematical laboratories according to its numbers, and that each class should spend in such a room at least a double period weekly.

(6) SUITABILITY OF COURSE FOR ALL PUPILS

474. We have no doubt about the greater suitability and the sufficiency of such a Mathematics course as we have described for the average pupil: the important question remains - would it suffice, up to School Certificate stage, for the ablest pupils? Would the small minority who have it in them to be mathematical specialists manage to cover in two years of VIth Form work all the manipulative practice and the more theoretical, systematic approach to the subject necessary in preparation for the university? We believe that they would, and our hopeful view is shared by a number of witnesses, including some who are concerned with the teaching of advanced Mathematics.

475. A similar conclusion was reached by the New Zealand Committee on the Curriculum,[†] who write, "Such a preliminary (i.e. School Certificate) course in practical mathematics has been proved in experience to have advantages even for pupils" proceeding "to university Mathematics or Science or advanced technological work." But some of our witnesses whose work has lain within the more academic tradition of Scottish Mathematics expressed misgivings on this score and urged, if we may put it so, that real mathematicians must get busy with real Mathematics before the VIth Form. Dogmatic assurance would be unwarranted here, and, as we are anxious to safeguard the interests of the few as of the many, we recommend that, while the Mathematics of the first two years should be little differentiated, provision should be made thereafter for a more theoretical and logically rigorous approach by pupils of marked ability; and that, as in the Cambridge scheme, there might meantime be alternative syllabuses at School Certificate stage.

*The Content of Education, p. 137.

[†]The Post-Primary School Curriculum, p. 51. (See footnote to paragraph 274).

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476. It may well prove that the most satisfactory way of providing for various types is to have the more practical course as basic for all, but to challenge the gifted pupil to the full exercise of his mathematical powers by having him undertake the more formal work as extra "contracts".

(7) COURSES FOR GIRLS

477. We indicated that in the case of the D and E pupils there was little need to differentiate the treatment of Mathematics for boys and girls, and at the other end of the scale it is probably equally unnecessary to have a distinctive approach to the subject for girls of high intelligence and bookish interests. Our evidence suggests, however, that at the middle levels there should be a separate course for girls, though some of our witnesses suspect that the disability of girls in this subject is conventionally assumed rather than real.

478. There would seem to be two cases to consider:

- (1) That of the girl who combines passable general ability with undeniable weakness in Mathematics. For such the sensible course is to attempt little beyond "tool

arithmetic", since anything more ambitious is unlikely to be required for the career she will elect to follow.

(2) That of the girl who is capable of a three or four years' course in Mathematics.. For her, no less than for the average boy, Mathematics. should have a practical reference; but, if she is expected to respond with the same lively interest as her brother, the application of the subject for her must be to a world as real and important in her eyes as is the world of engineering and surveying and navigation in his. The very nature of feminine interests and employment makes this much harder to compass, but a good deal depends on its being done, and we invite Scottish teachers of Mathematics to give their minds to a problem which has not so far received the attention it merits.

8. Science

(1) COURSE FOR FIRST THREE OR FOUR YEARS

479. We can best introduce this section by giving the reasons for the recommendations we made in Chapter V of this Report.

480. We propose that Science should be studied by every pupil throughout the four years of the School Certificate course. To justify such a policy we do not point to the technological needs of the country, nor do we lay the primary emphasis on that exactitude in observation, measurement and thought which is the characteristic virtue of the trained scientist. Science claims this place in the education of every boy and girl because of its immense cultural significance. It is far more than a subject or group of subjects: it is a whole vast world of human thought, feeling and endeavour; and it is the field in which the distinctive achievements of modern man in the West are most strikingly displayed. The need for scientific skill and understanding is unlimited at every level, and Science teaching must, therefore, be catholic enough in aim and spirit to value every kind of return for its labours - from the discoveries of the researcher down through all the degrees of technical competence and quickened interest to the least insight imparted to a dull child or the slightest awakening in him of curiosity or wonder.

481. Such an all-embracing purpose in Science teaching calls for a corresponding richness and variety of material and could not be secured by a narrow systematic discipline in one or two branches of Science, however valuable

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such a training may be for maturer students with the capacity to profit by it. Accordingly, our recommendation is that for the first four years the approach to Science should be wide and unspecialised; in a word, that "General Science" and it alone should be taught. For a definition of the term, we cannot do better than use the words of the English Science Masters' Association*, whose two volumes on the teaching of General Science are invaluable to any inquirer in this field: "General Science is a course of scientific study and investigation which has its roots in the common experience of children and does not exclude any

of the fundamental special sciences. It seeks to elucidate the general principles observable in nature, without emphasising the traditional division into specialised subjects until such time as this is warranted by the increasing complexity of the field of investigation, by the developing unity of the separate parts of that field, and by the intellectual progress of the pupils."

482. In advising against School Certificate courses in systematic physics, or chemistry, or both, which would be alternative to General Science, we go rather further than did the Spens† and Norwood‡ Committees. Our whole conception of secondary education made us anxious to guard against premature narrowing of scientific study, and a great weight of expert opinion expressed in recent years leaves us confident that in preferring this broad and integral treatment of the subject, we are doing no injustice to those who will later carry selected scientific studies to a high level. The Goodenough Committee on Medical Studies,§ the Chemistry Education Board and the Institute of Physics have all declared openly for General Science, as being not merely a possible preparation but unquestionably the best foundation for subsequent specialised work. We have, too, the assurance that the head of an important science department in a Scottish university would be well content if students came to him with the equipment derived from a good General Science course, provided they had keen minds and a genuine desire for scientific knowledge. Most, though not quite all, of our evidence was to the same effect. We are glad that we have not felt constrained to allow systematic physics and chemistry to compete with General Science at School Certificate stage; for the scales would have been weighted against the latter, owing both to the influence of teachers whose own training has been somewhat over-specialised and to the partiality of the average boy for what seems obviously and directly useful as against what may on a long view be educationally more valuable.

483. If there are any in whom the postponement of more formal science teaching rouses misgivings, we would remind them - (1) that a well-planned course in General Science need not be valueless from sheer lack of coherence for, as the Norwood Report‡ says, "There would be no randomness under a proper method of treatment, since the point of departure would be the pupils' own interest and experience, extended by directed observation"; and (2) that our provision for VIth Form work would, without any undesirable specialisation, allow of considerably greater concentration on science for two years than has hitherto been possible in Scottish schools.

484. In paragraph 480 we stressed the distinction between precise or "utilisable" knowledge and that background knowledge and inspirational content in which a good General Science course should be particularly rich.

*"The Teaching of General Science", Part I, page 30 - John Murray, 1936

†See footnote to paragraph 102.

‡See footnote to paragraph 177.

§Report of Inter-Departmental Committee on Medical Schools. H.M. Stationery Office, 1944. Price 4s. 6d.

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We would remind the teacher that in regard to the latter kind of knowledge any recourse to a rigid timetable and formal testing on his own part is only one shade less harmful than their imposition by an external authority. This side of science teaching seems to us as little accessible to direct examination as is the study of English literature. If a very general assessment of it is desirable, it will best be got from the unhurried contact of teacher, headmaster or inspector with the pupils at work in the laboratories. From such contact it should not be difficult to determine whether life and colour are being imparted to the science teaching. If these qualities are revealed in the response of the class as a whole, that is enough; sane men may well refrain from the attempt to weigh the imponderables in respect of individual pupils. Very apposite is the verdict of Sir Philip Hartog* in regard to General Science:

If ever there was a subject in which the go-as-you-please method of an enthusiastic teacher was the best of all methods, I believe that you have it here. Therefore make room for it in your curriculum but impose no examination burden on the pupils.

(2) CONTENT AND OBJECTS OF COURSE

485. We go on now to consider (1) the content of three- and four-year courses in General Science, and (2) the objects to be aimed at and the methods to be employed in teaching it.

486. It is common ground that while General Science "does not exclude any of the fundamental special sciences", the major elements in any school course will continue to be drawn from physics, chemistry and biology. But there is equal agreement that very considerable parts of what it has been usual to teach in physics and chemistry must be curtailed and simplified, or else postponed entirely till the VIth Form stage.

487. In general the quantitative aspects of both sciences have been given excessive emphasis. Not one of our witnesses had a word to say for the familiar series of experiments in density, the undue lingering on the Principle of Archimedes, and the time and energy given to difficult experiments in heat, e.g. coefficients of expansion, which involve elaborate calculations. In laying it down that such experiments have little place in a General Science course, the Science Masters' Association† gives a wise reminder that qualitative experiments are often more striking and easily remembered than quantitative ones, and that, while pupils must never be allowed to forget that physical science is based on exact measurement, "the appropriate degree of accuracy may often be more profitably attained by increasing the scale of an experiment than by refining the precision of the measuring instrument." For in such matters one is limited not merely by the mental quality of the young student but by the very imperfect muscular co-ordination which is all one can expect of a growing child. Hence the futility of introducing into the earlier years chemical weighings that involve the use of delicate beam balances. At that stage, a spring or Butchart balance will give as high a degree of accuracy as is either necessary or attainable.

488. The first thing to be said about biology is that the place given to it in Scottish schools till now has been pitifully inadequate. A late comer, it has lacked impressive credentials to a generation more concerned with science for livelihood than science for life. In certain quarters it has been dismissed

*Address to Higher Education Meeting of National Union of Teachers, 1937.

†Op. cit., p. 33

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as "merely observational", a poor thing to set against the rigour of the mathematical sciences. It would be strange irony if the discovery of biology's increasing importance to the physicist should turn academic frowns to welcoming smiles. Be that as it may, in any General Science curriculum, the claim of biology must be for parity with physics and chemistry everywhere, while in courses for girls and in the science schemes of rural areas it is difficult to deny it pre-eminence.

489. Within the range of biological science itself we are struck by the disproportionate place given to the study of plant as against animal life, and we invite science teachers to consider whether this predominance of botany rests on anything more substantial than custom and the greater ease in getting and handling plant material. We feel sure that zoology has decidedly the greater and more sustained appeal for many girls and for nearly all boys, and we have it in evidence that this is particularly true of D and E pupils, whose interest in animal life is one of the greatest assets the science teacher has.

490. There is a further reason for urging increased attention to zoology: it leads more directly to something we regard as an essential element in the General Science course - elementary teaching on the structure and functions of the human body and the conditions of healthy living. We rejoiced to learn from our witnesses that here too is a subject in which children of limited intelligence can be keenly interested; and, whether simple physiology and hygiene are to be the province of the physical training teacher or of the scientist, the latter must not neglect the side of biological teaching that provides the natural approach to them.

491. We think astronomy and geology have a good claim to be included, even if their place be a modest one, in the General Science syllabus. The Science Masters' Association first excluded and then, on second thoughts, gave a limited admission to both subjects, and the same hesitancy is reflected in the findings of the Education Reform Committee of the Educational Institute of Scotland. The objections, advanced do not seem to us convincing. The subjects do not readily lend themselves to experimental treatment. But surely the hand of Professor Henry Armstrong does not rest upon us so heavily that we must go on equating school science with the laboratory? It is difficult to make arrangements for observational work in school. But when did it become a demerit to seek education outside the playground? And is it impossible for a keen teacher to find an occasional evening hour to star-gaze with his pupils?

492. Nor are we happy about the suggestion that what is to be done in astronomy and geology is the concern of the geography teacher. It would be absurd to deny the latter the right to enter these fascinating fields, but we hold very strongly that during the School Certificate years geography is first and foremost a social not a scientific study and that its strongest affiliations are with history and current affairs. Accordingly, we suggest that there remains with the teacher of General Science a real, if limited, responsibility in regard to astronomy and geology.

493. In astronomy, emphasis would naturally be laid on the movements of earth, sun and moon, which bear directly on time-keeping and navigation, but the appeal to wonder is so strong in stellar astronomy that it should not be neglected.

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494. The case for geology on both practical and educational grounds has been well put in two British Association Committee Reports of 1936 and 1937, from the former of which we quote:

Geology has an appeal to which many students, even quite young ones, readily respond, and an interest that roused and stimulated almost invariably outlasts school days. It gives a definite practical outlet, takes them out of doors, and provides a pursuit which can be followed in school journeys, in the leisure time. of holidays, and through the opportunities afforded by travel. The field of investigation is almost unlimited, and for this reason progress. in certain directions must be closely related to the activity of amateur workers.

495. Astronomy and geology are alike in that in differing senses the material of their study is all about us, and that they confront the mind with the twin immensities of space and time, re-awakening that primal sense of awe which our over-sophisticated age particularly needs for the good of its soul.

496. No worthy concept of the purpose of science teaching can fail to take account of the three aspects to which we referred in an earlier chapter-the aspects of wonder, utility and system. The systematising of knowledge in a rational synthesis may well be the noblest of the three, but it is assuredly the narrowest in its application, for the intellectual qualities it demands are in their fulness given only to the few, while in very many they can never be more than rudimentary. Hence to make the inculcation of the more austere intellectual virtues the main aim of General Science is to sacrifice the attainable for the unattainable so far as the majority of boys and girls are concerned. In the early years of the secondary course science teaching is fully justified if it results in interest, appreciation, enjoyment and background knowledge - if, as the Science Masters' Association put it, the pupils not only learn science but learn to love it.

497. It is not yet sufficiently realised that the age of wireless, cinema and aeroplane has brought a new challenge to the educator. The uncontrolled experience of children has become so colourful and exciting that, if the controlled experience which we call schooling

fails completely to compete with the other in vividness and interest, education will be in desperate case. This challenge must be met, not with puritanical lamentations but with the robust sense which informs these words of the Science Masters' Association:

It is possible that we, who are sheltered by permanent scholastic appointments, have something to learn from those whose livelihood depends on their ability to grip their audiences. We science masters are fortunate in having a really fascinating story to tell. Let us always be asking ourselves whether we tell it well, suiting our pace to the youthful hearers, or whether we do not often let the story drag and interest subside.

498 Witnesses whose work has lain among C, D and E children have stressed the transitoriness of their interests, and we think it should be strongly impressed on young teachers how largely success with such pupils depends on devising "projects" that can be quickly completed, and on the resourcefulness that knows how to avoid drag by a switching of the interest. And may we say in parenthesis that this full recognition of the obligation to interest the child, wherever interest is possible, does not conflict with another and equally real responsibility of the teacher - to use every form of quiet, moral and disciplinary pressure to make pupils learn to do a task, interesting or dull, simply because it is the duty that lies to their hand.

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499. As the secondary pupil becomes more mature, the utility aspect of his science bulks very large, and the teaching should take full advantage of the intense interest normal boys and girls feel in the varied applications of science and in its bearing on the work of their choice. We should not be justified in recommending a "topical" method of teaching exclusively and with pupils of all mental levels, but evidence from very varied sources powerfully supports the view that the systematising motive has long been overworked, and that "to fail to make use of the utility motive is to allow one of the richest sources of intellectual activity to run to waste."

500. The doctrine that school science must find its starting point and inspiration in the actual human environment, if specially relevant to the treatment of C, D and E pupils, is true for them all. As far back as 1918, Sir J. J. Thomson's Committee recommended that the teacher of physics should work from the pupils' interest in natural phenomena to the study of scientific principles rather than treat natural phenomena merely as illustrations of scientific principles previously established in the laboratory. Similarly, the British Association Committee of 1917 laid it down that "topics, instead of being regarded as applications of scientific principles to be taught if time and the demands of a public examination allow, should be treated as the foci of interest from whose study the pupils' knowledge of the scientific principles emerges."

501. We stress this evidence, because we know how strong will be the tendency to systematise the work of the abler pupils too much and too soon. There may be, as in mathematics, a case for some differentiations in the treatment of the A and good B pupils during the

later part of School Certificate work; but, if the programme consists merely of concurrent or alternating courses in physics, chemistry and biology, with little attempt at integration or the use of topical interest, then nothing whatever is gained merely by calling this "General Science".

502. We add a number of brief observations which, lacking the minor merit of originality, are perhaps commended by the major merit of being true.

(1) No school science course is satisfactory that acquires meaning only when completed by advanced studies (cf. Ch. VI, paragraph 122).

(2) With unlimited material available, which will enrich the mind as well as train it, nothing should be admitted to a science syllabus merely for its training value.

(3) Much of the best apparatus for elementary science is made, not bought, and a working bench is as much in place in a laboratory as an array of balances and test tubes.

(4) Great stress should be laid on science as human achievement, and the effective use of biographical material can make science a humanistic subject singularly rich in appeal.

(5) Every science department needs a library of simply written books. Fortunately there is a rapidly growing literature of popular every day science which has much to give to the inspirational side of the teaching.

(6) The full utilisation of vocational interest requires visits to municipal and industrial plants where pupils can see science in action.

(7) Visual aids are not desirable extras but indispensable equipment of the enlightened science teacher.

(8) Biology is taught in gardens, aquaria and museums no less than in laboratories.

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(9) Up to the end of School Certificate stage, one person should teach all the science of a class in a given year.

(10) Note-taking has been much overdone and is often a time-waster. Brief pencil notes and simple sketches should normally suffice, but there might be value in occasional full descriptive notes treated as an exacting exercise in English composition.

(11) The proportions of talk, demonstration and experiment in science teaching must vary with the age and quality of the pupils. This is something to be determined empirically, not dogmatically: nor is it any

longer impiety to look back beyond Armstrong and his heuristic method to South Kensington and the old "physiography" and to suspect that we may still have something to learn from the earlier tradition.

503. Regarding science in the VIth Form, we stress two points only:

(1) Both continued General Science and systematic courses in separate sciences will be required, the former for prospective medical students and such as wish unspecialised work for cultural or other reasons, the latter to meet the needs of pupils preparing for advanced scientific studies in universities and technical colleges.

(2) While many will drop the full study of science at School Certificate stage, we think it most desirable that some contact with scientific thought and teaching should continue for such pupils throughout the VIth Form. Accordingly, for those whose main studies are on the humanistic side, we recommend a limited scientific course, say, two periods weekly, which would be devoted not to experimental work but to lecture-talks and discussions on the fundamental scientific conceptions and their bearing on the problems of society.

9. Domestic Subjects

504. The increased attention given to the household arts, the improvement in the quality of the teaching and the provision of suitable accommodation and equipment for this work are among the most gratifying developments in secondary education between the wars. The time is ripe for further advance, and we submit that justice will not be done to either the educational value of the subject or the social needs of our people unless that advance ensures - (1) that every girl has some regular training in the domestic arts throughout at least the first three years of her secondary course, and (2) that a much bigger proportion of girls than at present take a full course in domestic subjects extending over three or four years.

(1) REGULAR TRAINING

505. All we have said in this Report about the claims of handicraft to a place in the education of every boy applies with equal force to the value of house craft for girls, and we think it deplorable that so many are leaving the senior secondary schools without this training.

506. It has been represented that, for girls following an academic curriculum, it is enough to provide an intensive course in domestic science during the last term of their schooling. We cannot agree, nor did our expert witnesses. Such a course is a desirable extra, but it is not an adequate substitute for a double period weekly over the first three years. Moreover, even if it could be assumed that the intensive training is educationally the equivalent of the

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other, the fact must be faced that illness, early leaving, limitations of accommodation and staffing and other causes will always prevent

many girls from having it, and that if a basic training in the domestic arts is to be assured for every girl, she must get it as she moves up the school.

507. We wish it were possible to insist on a minimum of three consecutive periods for homecraft during one of the sessions at least; but we suggest that if the third period cannot always be found in a two-language course, the cookery periods be made the first two or the last two of a day, as experience shows that girls are usually willing to begin a little earlier or stay a little later in order to complete the lesson without undue hurry. In one-language courses three periods on end should normally be possible.

508. This minimum course for all, with no vocational significance whatever, save in the sense that it is every girl's vocation to be a home-maker, should be wide in its appeal and quite unspecialised. The elements of cookery and needlework will remain the core of it, but in neither branch is it necessary to be exhaustive. To teach a girl the simpler principles of cookery and food values and have her do a few essential things well is of far more worth than to cover the whole range of the recipe book.

509. Needlework and laundrywork should be taught together. The teaching of the former is vastly improved, but we suspect that there are still a few quarters that need two homely reminders: first, that "doing specimens" (the "grammar" of the art) is a preliminary to, not a substitute for, making garments; and second, that no generation of girls will ever be thrilled by being taught to make the things their mothers might have liked to wear.

510. Some reference there should be to personal and household hygiene, but here the domestic science teacher's boundaries march with those of the biologist and the physical training specialist, just as at other points she borders on the province of the chemist or the teacher of art.

511. The basic course in domestic arts should find room for some discussion of planned expenditure of household moneys and a little instruction in the care and training of babies. The introduction of this last has raised the very debatable question whether the instruction should be given by the domestic subjects teacher, or by the health visitor or trained nurse. There is a natural desire not to break the unity of teaching in the domestic arts, but experience seems to show that instruction in mothercraft carries much greater authority and appeal to girls when it is given by a nurse, and we conclude that she is the person to do this work, despite her lack of teaching qualification.

512. We draw attention here to a point of extreme importance not for domestic science only but for the whole range of practical work. Care must be taken that the intellectual element is never lost and the instruction allowed to degenerate into an imitative routine. Practical subjects are not alternatives to or rests from reasoning subjects: they are forms of education in which intelligence operates in and through concrete activities. The bearing of this on the teaching of cookery, for example, has been well brought out by John Duncan of Lankhills,* and we bring to the notice of domestic science teachers his valuable distinction between practical work that *expresses a purpose* and such as merely *shows a result*.

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513. Some of our witnesses complained that schemes of work in domestic subjects are much too uniform at present. Apart from the distinctive touch the individuality of the teacher should impart, schemes ought in their content and emphasis to reflect major differences in social environment, including the fundamental one between town and country life. Provided that a school's practice does not fall below the ideal of simple graciousness and refinement of living, it will never err in taking realistic account of life as the children are going to live it.

514. A good basic education in the domestic arts finds its crown in a short period of residence and in the unified experience of "running the house". Accordingly, we recommend that the provision of housewifery centres; where girls can live in, be given a high priority in all the building and reconstruction programmes for secondary schools. Moreover, we feel very strongly that no ban on permanent building should operate in regard to such accommodation. Common sense will accept with a good grace the limitations of temporary or prefabricated units for most school purposes: but, if "the centre" is to become for a time school and home and the whole scheme of things to successive groups of girls, it is essential that its structure and furnishings alike should satisfy every reasonable standard of domestic amenity.

(2) BIGGER PROPORTION TAKING FULL COURSE

515. While we attach first importance to some housecraft for all girls, we are keenly desirous that far more girls should take a full course in domestic arts, and we hope that neither a mistaken emphasis on academic curricula nor the illusory advantages of premature commercial training will prevent this development. Like the one-language technical course for boys, the one-language course with domestic subjects should be second to none in esteem and popularity; and in all non-language courses for girls a generous place should be given to training in home-making.

516. "Domestic Subjects" as part of the syllabus for the School Certificate should, as in England, include both cookery and needlework; the separate specialised treatment of the two branches belongs to the more advanced stage. Fortunately, too, the troublesome question of "allied science" should cease to vex. As every girl would be following a course of General Science, with a definite practical reference, the need for a separate science course for the domestic arts pupils would no longer be seriously felt.

517. The provision of intensive School Certificate courses in the VIth Form is particularly desirable in the case of domestic subjects, as many girls who have devoted the earlier years to an academic curriculum may well be attracted to the domestic arts at this stage, either to give balance to their education or in preparation for a career.

518. There should also be the normal provision of an "advanced course" in domestic subjects, to complete the preparation of girls going on to a domestic science college. Such a course should, like the

Senior Leaving Certificate course, allow of alternatives - (1) specialisation in cookery and dietetics, with allied studies in science, and (2) specialisation in needlework and design, with allied studies in art.

519. Whether "Domestic Subjects" should be examined in the Higher School Certificate at both levels or on the "subsidiary" standard only is a question on which guidance might be obtained from the experience of the English examining boards.

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520. We may, in connection with domestic subjects, fitly draw attention to a point that concerns all the practical courses in the secondary school. It has been a complaint that the Department has been too rigid in its prescribing of minimum numbers of hours which a Certificate candidate must devote to each of these courses, and that pupils of high intelligence who might have added a practical subject to their academic ones and greatly profited thereby have been debarred, because they could not find the very large amount of time demanded by the regulations. Our evidence convinces us that pupils of high calibre can cover practical courses very satisfactorily in considerably less time than is considered necessary for average pupils, and we think they should be free to do so. We appreciate that there was need for minimum time requirements, while standards were being gradually built up in a new group of practical subjects, but that stage is past, and we recommend that the Department should no longer insist on "time spent" as distinct from "standard reached", but should leave it to the school, which knows the quality of the pupil in question, to decide whether he or she can adequately cover the work in the time available.

10. Education for Commerce

521. It is the verdict not of the educational idealist but of the business man himself that the best preparation the secondary school can give the boy or girl who is to enter the world of commerce is a sound general education.

522. The one supremely important "commercial subject" is neither book-keeping nor shorthand, but English - not that fictitious thing called "Business English" but the plain speech of every day, command of which enables a boy to understand and to make himself understood, to receive and to convey ideas, information and instructions. If along with this the school gives a facility in calculation, some awareness of what is happening in the world and a certain alertness and receptivity of mind, then by comparison the commercial emphasis and the manipulative skills matter very little. We should, therefore, be content to see what are commonly called "commercial subjects" occupying a very inconspicuous place in the earlier stages of the secondary curriculum.

523. But we feel compelled in this matter to take some account of existing practice; nor can we evade the fact that, if the desire for specifically commercial training is denied any satisfaction whatever in the three- and four-year courses, then, with the raising of the age, the schools will have to cope with many boys and girls whose

schooling will go dead in the last year and who will leave at the earliest date the law allows. What we propose, therefore, is in the nature of a compromise; and, if we seem slightly more hospitable to commercial subjects than the Norwood Report,* it should be remembered that the multilateral Scottish school could hardly emulate the exclusiveness proper to the "grammar" school within the tripartite scheme of English secondary education.

524. Our recommendations are these:

(1) That the time allocated to Commercial Subjects in the first two years of the secondary course should nowhere exceed four periods weekly; and that it be devoted to a very simple and unspecialised treatment of book-keeping, with which should be linked on the one hand a little extra mental arithmetic and short methods of calculation, and on the other such elementary teaching about transport and communica-

*See footnote to paragraph 177.

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tions, commercial terms and routine, and the nature and functions of banks as might usefully be given to any boy or girl in a secondary school.

(2) That the teaching of shorthand and typewriting should be by regulation excluded from the first two years of the secondary course. These are purely manipulative skills, almost devoid of educational value, and the evidence is conclusive that they are best and most expeditiously' acquired by intensive practice after fourteen or fifteen years of age. To set ungrown children of twelve or thirteen, with their still uncoordinated muscles, to learn such skills on a couple of periods a week is an educational folly that has gone on far too long.

(3) That shorthand be started in the IIIrd Year; and that at least four periods weekly be given to it over two terms in order that the theory may be mastered fairly quickly and a good beginning made with speed practice. The importance of correct transcription should be stressed throughout. Though we have taken no direct evidence on the subject we venture to raise an important question in connection with shorthand. It is common knowledge that the learning of shorthand up to office speeds involves a considerable expenditure of time, and it seems just possible that labour is being wasted, because the schools are using tog high-powered instruments for the purpose on hand. The shorthand systems in common use are marvels of ingenuity, but they involve an array of contracting devices sufficient, if effectively used, to give reporting speeds far beyond anything required of the thousands of girls who pass through classes every year, and the mastering of the body of "theory" governing the use of the contracting system undoubtedly postpones and slows the process of acquiring moderate speeds. Now,

when one remembers the surprising increase in writing speed got merely by using brief signs for some fifty or sixty of the commonest words, it is difficult to quiet the suspicion that working speeds of 100 to 120 words a minute could be secured more quickly than at present by the use of some simple form of short-writing, designed solely for this purpose and not pretending to meet the far more exacting needs of the reporter. As school time is precious and this matter concerns many thousands of young people, there is room for expert inquiry and experiment which, disregarding all vested interests both professional and commercial, would concentrate on the question how this quite limited objective, the ability to take letters to dictation, can be reached with the greatest economy of time and effort.

(4) That even where typewriting is started in the IIIrd Year no more than a beginning should be attempted, the systematic practice on the machine being regarded as work for the IVth Year.

(5) That every encouragement be given to girls who have taken the three-year commercial course to continue for a fourth year and complete their preparation for office work within the disciplined and varied life of their own school. To make the extra year attractive to them may require a concentration on commercial subjects greater than is provided for in our timetables. We see no objection to this in the 15-16 year, provided there is a sufficient element of general and cultural education to justify the inclusion of the training within a secondary school.

525. The provision we have suggested would allow of "Commercial Subjects" being included in the syllabus for the School Certificate. Whether they should be confined to the combined subject of book-keeping and shorthand or should include typewriting is something to be determined by the Department.

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526. If we cannot be more than acquiescent about the inclusion of Commercial Subjects in the earlier secondary years, we feel on the other hand that different forms of preparation for commerce will be an important part of VIth Form work. In general, it is unlikely that the type of pupil who takes Commercial Subjects in the School Certificate Course will pursue them far into the VIth Form, though any of these boys and girls electing to stay on for even, a term or two should be welcomed and enabled to use the time profitably.

527. But the important provision at this stage will be for pupils whose education has been academic up to School Certificate. Many girls may desire a limited continuance of general schooling along with a year's intensive course in shorthand and typewriting as preparation for office work, and we think they should be able to get it. Without reflecting in the least on the proprietary business colleges, we hold that, if this work can be done efficiently in the secondary schools,

there is gain to the girl and gain to the school in her rounding off her training there.

528. At a higher level, both boys and girls may desire to follow a course comprising some of the commercial subjects of real educational value - book-keeping, commercial practice, economic history or geography, and the elements of economics itself, together with the study of a modern language such as Russian or Spanish. This seems to us worthy of all encouragement, and we hope not only that full provision will be made for it in VIth Form teaching and in the Higher School Certificate scheme, but also that business firms will use and remunerate these young people in such a way as to make it worth their while to stay at school to seventeen or eighteen.

529. It is not too much to say that the vitality of the VIth Form will depend largely on the success of the schools in providing for this and other new types of advanced education as well as for the orthodox Higher Certificate work in the traditional subjects.

11. Music, Art and Crafts

530. We have grouped Music and the Visual Arts both in dealing with the content of secondary education and in our suggested timetables; in the former context, to make it clear that together they constitute the main educational instrument (apart from literature) for the expression of feeling and imagination and for the cultivation of taste; in the latter, to convey that there should be no fixed division of time between them, because, while both are needed, their relative appeal to and value for individual pupils may vary considerably.

531. Though the position has slowly improved over a generation, the biggest problem in regard to the teaching of the Arts is still to have them taken seriously at all. Education authorities, headmasters, and parents in their different ways contrive to perpetuate the notion that such things as singing and painting hardly belong to the serious business of schooling but are at best recreational attachments to it. Against this philistine conception there must be war without truce. The Arts are recreational only incidentally, in the sense that the best relief from over-cultivation of one side of the mind is always to turn to another. But this "corrective" function is reciprocal, and it is no less true that the best antidote to an overdose of the aesthetic or emotional is to be found in severely practical or intellectual activity. Boys and girls must learn to draw and play the fiddle not because they need a rest from French or

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Mathematics, but because man cannot live by Euclid alone, and a failure to cultivate the Arts leaves life poor and ill-balanced.

532. If the Norwood Committee* was right in feeling that for various reasons the Arts "have lacked a good tradition in the schools", on the other hand there have been compensations attaching to their late arrival on the educational scene and to their hard struggle for even a modest recognition. They have escaped the petrifying effects of a too powerful tradition and the complacency of the long established. Their advocates have been put on their mettle, and it is a pleasure to record the enlightened enthusiasm shown by teachers of Art and Music alike

in recent years, and the increasing amount of first-rate work being done in progressive schools.

533. Within the general aim of fostering the love of the beautiful, Art and Music teaching must always fulfil a threefold function: to train the pupil in executive techniques; to provide facilities for creative work in various media; and to develop in the young the appreciation of artistic excellence in many forms.

534. The history of Art and Music in the schools is virtually the discovery by experience that the fulfilment of all three functions is a condition of effective work, and that, if passing fashion or a mistaken concern for quick results disturbs their due balance, both subjects decline sharply in educational value. They have known the contrasting temptations to over-emphasise and to neglect the "grammar", sight-reading in Music, and in Art the elementary principles of draughtsmanship and colour harmony. Overstressed, it reduces the teaching to a jejune routine; but its disregard is followed by formlessness in the creative effort and by shallowness of understanding on the appreciative side. Again, lack of standards of excellence has proved as fatal to the child's creative efforts as any deficiency in technical training, while even the very limited practice of an art which is possible for the untalented finds its reward in more disciplined powers of appreciation.

535. But, though executive skill and appreciation are mutually dependent, the two elements are not of equal ultimate importance in the teaching of the Arts to pupils in general. For the many, in contrast to the few who have a distinct musical or artistic talent, what matters most in the end is intelligent and trained sensitiveness to fine work, and it is the indispensable value of such appreciation in the age of wireless and town-planning which above all justifies the inclusion of Music and Art in the curriculum of every pupil throughout the first four years.

536. We consider that in the Ist and IInd Years the available time should be fairly evenly divided, two periods to Music and two or three to visual arts. If the pupil proves equally apt for both branches of aesthetic training, the even allocation of time should continue through the third and fourth years; but where there is evident disparity in the appeal they make and in the pupil's profit from them, a preponderance of time should go in the later years to the subject in which it will be best used, provided the other is continued even for one period weekly on the side of appreciation. It will be noted that we propose for Music the complete parity with visual arts which it has not hitherto enjoyed in the secondary school. It is no belittlement of the latter but a belated recognition of the former that prompts us to recommend complete equality of status from now on.

*See footnote to paragraph 177.

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537. We have had in mind so far the Art and Music to be taken by all secondary pupils, and we believe that this work with no examination objective will always be the biggest contribution of these subjects to the life of the school. . But we recognise that some girls and boys will wish to cultivate a pronounced aptitude for Art or Music in a more

systematic way even within the School Certificate course, and we do not think the chance to do so can fairly be denied them. Art was a full subject for the old Intermediate Certificate, while both Art and Music have been so recognised in the Senior Leaving Certificate Examination and in the School Certificate schemes of the English examining boards. Accordingly, we recommend that Art and Music be admitted as School Certificate subjects within a one-language or a non-language course, and that the time-allowances, be approximately those for Technical or Domestic Subjects in the same curricula. It would not normally be possible to offer both Art and Music on this full scale at that stage, but the taking of one should not be a ground for discontinuing completely the unspecialised study of the other.

538. The history of Music and Art as school subjects makes it easy to understand why an unusual diversity in teaching qualification has persisted to this day, especially in the former. Our recommendations in the Training of Teachers Report* will after a time, we hope, right what is amiss; but it is pertinent to stress here a danger to the balance of school work in both Art and Music arising from excess of what one might call the "executant element" in the equipment of many teachers of these subjects. In Art this takes the form of a training strong on the side of drawing and painting, but much less adequate in respect of design and a wide range of crafts; in Music it means high instrumental skill, but not always a like competence in the teaching of singing and in classroom techniques. This is a matter of considerable importance and it merits the immediate attention of the Scottish Education Department and the National Committee for the Training of Teachers.

(1) MUSIC

539. The main element in the musical education of secondary pupils must be good class-singing. Here much depends on the work done in the primary school, and we were disappointed to learn that in some areas at least the secondary teacher cannot count as he once could on a sound standard in sight-reading among children of twelve. Without plunging into "the battle of the notations" or discussing the relative merits of music specialist or class-teacher in the primary school, we draw the attention of the education authorities to the situation. It is evident that if primary school music becomes ineffective in this important regard, the secondary school will fail to produce the standard of singing traditional in Scotland, and the loss to music in the churches, choral societies, youth groups and the community generally will be calamitous.

540. We also invite the education authorities to consider whether they have taken as seriously as they should the provision of suitable accommodation and equipment for the teaching of Music. It needs more than just a room with desks and a piano of sorts. This is as truly specialised work as is the teaching of science, and we hold that an enlightened community must be in earnest about meeting its requirements. We recommend, therefore, for every secondary school a special music room or rooms, of good size, sound-proof and away from external noises. It should be equipped with a piano of good quality, a radiogram and an adequate library of books, prints and gramophone records.

*Cmd. 6723.

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541. Without any parochial exclusion of other folk music or of classical songs, the music teacher should make the basis of his class-singing the folk songs which are the rightful inheritance of Scottish children, and should ensure that they leave school knowing the words and airs of an ample repertory of their country's best songs.

542. Finished singing is much to be desired, but joyous singing - we are tempted to say "hearty" singing - is essential: and, with no disparagement of the value of careful preparation, we would stress that technical or artistic excellence can never wholly compensate for the loss of the spontaneity and delight which should mark the singing of young folks. It follows that we strongly deprecate the securing of beautiful tone by the exclusion of pupils who could and would sing, if allowed to do so. Nor do we find sufficient justification for discontinuing the singing of adolescent boys. Expert evidence and the striking success achieved in certain schools convince us that singing, and pleasure in singing, are possible for almost every boy throughout the secondary course, provided correct teaching techniques and appropriate song material are employed.*

543. Pupils should be guided in the writing of melody and given every encouragement to develop this creative urge. Mr. Herbert Wiseman told us that Scots children have a wonderful aptitude for melody making and at one time sent in thousands of tunes to the B.B.C.

544. Though only a minority of pupils have executant ability, boys and girls should be encouraged to "make their own music", not necessarily on the piano or the violin but on, say, the recorder.

545. Each school should have its own choir and, if possible; an orchestra. A choir in four-part harmony should be the aim of every co-educational senior secondary school, and, with the orchestra, it should lead the praise at morning assembly. Compared with the United States, we are very backward in the development of school orchestras, largely because of the great cost of providing instruments - especially "winds". We can only hope that education authorities will show a new awareness of their obligations (and opportunities) in this matter.

546. We draw attention to the proved effectiveness of group instruction in the violin. Promising beginnings were made before the war, and it may be that the application of new teaching techniques will make Scotland once again a land of fiddlers and preserve what is in much danger of being lost, the great tradition of Scottish reels, strathspeys and other folk dances.

547. Of the supreme importance of education in the appreciation of music it is not necessary to speak at length. It must start from such vocal and instrumental training as the pupils are capable of, and widen out to utilise the many new resources our age makes available. To use good records, and make them better by informed commentary; to give music that historical background without which no subject carries its full appeal: to train discrimination in wireless listening; and to foster the habit of concert-going and the enjoyment of music-these

are among the services by which the music teacher can enrich life for the new generation and raise the standard of taste for the whole community.

*"The Boy's Changing Voice", by Norman W. Mellalieu. The Oxford Press, 1935.

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548. We have not felt it necessary to consider in detail the syllabus in Music for the School Certificate. We assume that it would follow the general lines of the existing Senior Leaving Certificate schemes, but we desire to stress the following point. The practice by which the instrumental work for the Certificate can be done with an outside teacher should be disallowed. It results in an unnatural separation of musical theory and practice, and it is objectionable in that it leaves a substantial part of a pupil's Certificate work in the hands of one over whom neither the Department nor the school has any effective control.

(2) ART AND CRAFTS

549. It is quite consistent with delight in the "free expressional" work of young children to hold that, when the secondary stage is reached, Art must be taught. The present practice in the secondary schools follows a sensible middle way after a period of excessive formalism and control, and another in which youthful talent, denied guidance in the sacred name of freedom was expected to find adequate expression despite its complete ignorance of techniques.

550. Even more than in Music, the major aim of teaching in Art is appreciation rather than the skill of the executant: the schools' job is to turn out, not a few competent art producers, but a great many "intelligent art consumers". If appreciation is to be intelligent, and free from a glib and dilettantish quality, it is essential that pupils should have firm instruction in the fundamentals of line and colour, and we think the schools are right to insist on this as the necessary preliminary to sound work whether in design or in appreciation. But it is equally important to remember that for most boys and girls it is only a preliminary. In the senior secondary schools at least, owing partly to the teacher's own training and partly to the influence of the specialised syllabus for the Leaving Certificate, there is a tendency to dwell too long on drawing and painting, to the neglect of design and the varied applications of the visual arts to modern living. This means a loss both educational and social. There is educational loss, because, just as few people have sustained capacity for pure mathematics, so in the visual arts there are obvious limits to the appeal of technique and even of imaginative expression, whereas many boys and girls can find great interest and satisfaction in applying what they have been taught about form and colour, about material and function, to the everyday realities of home and shop and factory. And that they should so apply their knowledge is a major need of society. We have been too prone to accept ugliness as the necessary mark of mass-production and a mechanistic age. Recent experience shows, however, that if education can revive the craft-interest in the producer and match it with a high standard of taste and expectation in the consumer, there is no inherent reason why the products of the machine should not combine functional excellence

with delight to the eye. In support of this, it is only necessary to instance what has been done in printing and book production, in furniture and glassware, or to point to the indisputable merit of the best contemporary architecture.

551. Moreover, this application of art to industry and social life has for post-war Britain a new, an economic urgency. Our material well-being is in the opinion of many largely bound up with our ability to produce and export goods of high quality and distinctive workmanship. We agree, therefore, with the finding of the Council for Art and Industry* that "the art teaching in the

*"Education for the Consumer", p. 49 - H.M. Stationery Office. 1935.

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primary and secondary schools should aim not only at providing a basis of art knowledge and some degree of efficiency in the practice of art and crafts as part of a general education; but it should be the foundation and preparation for pupils entering industry and pursuing their studies further in the workshop or factory, in continuation classes, technical schools, schools of art, or universities." We support this recommendation, not as a reluctant concession to economic necessity but from a conviction that here, as so often, the requirements of practical life and the truest educational enlightenment point the same path. It is pertinent to add that a good art teacher will never neglect to make clear to young people how consistently in human history great art has had a religious or national or civic inspiration and relevance.

552. We have been more concerned to suggest the considerations that should influence the art teacher's work than to discuss its content in any detail, but the following matters have been brought to our notice:

(1) The range of craft work needs to be extended. It is, however, important to exclude trivial crafts with little or no educational value and to give a place only to such as will genuinely draw out the powers and stimulate the creative ability of the pupil. In some cases, it seems as if forms of craft work had been selected not because they offered most to the pupil but because they demanded least from the teacher in the relevant skills or from the education authority in the necessary equipment.

(2) The craft work should take account of the divergent interests of girls and boys. For the former, no field of study in design and colour harmony can rival that of dress, and we agree that it is more sensible to invite their interest to the dance frock, with its various accessories, than to lamp shades and decorated vases. The need for co-operation with the domestic science department is obvious, and in many schools a considerable measure of it is achieved. Boys are more difficult to provide for, since their interest centres less often in form and colour than in structure and three-dimensional design. Successful craft-work for them indubitably demands a co-operation of the art teacher and the technical teacher which will not be effective until the training of the two

types is drawn much closer together, and we recommend that the Department and the National Committee for the Training of Teachers give this problem immediate attention.

(3) It is impossible for art teachers to meet the new demands which education and industry alike are making on them, unless accommodation and equipment are on a higher standard than in the past. Art may have fared a little less badly than Music, but there are still too many rooms where teaching is handicapped by unsuitable desks or poor lighting, or by lack of running water, storage accommodation and the very extensive "tacking space" that decorative work requires.

(4) It is easy to exaggerate the value of visits to art galleries unless the conditions are right - ample time, small groups of pupils and the guidance of a specialist teacher.

(5) Every school should form its own art gallery, to include outstanding examples of its own pupils' work, together with good prints of the great masters. The latter can be of real educational value, and neglect of fine reproductions is a form of all-or-nothing perversity akin to contempt for the use of translations.

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(6) Of all school subjects Art has probably the largest number of natural links with others. No member of staff can make a more valuable indirect contribution than the art master, through willing co-operation with his colleagues.

553. VIth Form work in Art and Music, like that in Technical Subjects, will consist of (1) intensive preparation for a School Certificate pass by pupils who have not specialised in these subjects at the earlier stage, and (2) the advanced work of pupils aiming at Higher School Certificate standard. This last will concern only pupils of outstanding musical or artistic gifts, and the details of it are out with the province of a lay committee.

554. The Council for Art and Industry* have recommended that the teaching of art appreciation "should have a definite place in the curriculum throughout school life". We have admitted that claim for both Art and Music up to School Certificate stage, but to press it for every pupil thereafter is, in our opinion, to ignore the fundamental difference between general secondary education up to the age of sixteen and the freedom and reasonable specialism proper to the VIth Form. We are disposed to admit only three intellectual "compulsions" in the VIth Form - continued practice in the understanding and use of the mother tongue, some little attention to the basic ideas of science, and social studies. But we hope that, outside the specialised studies, schools will provide a considerable variety of short VIth Form courses, and within such a scheme talks on the appreciation of Art

and Music would find their natural place and be profitably attended by many who had given up the formal study of these subjects.

12. Physical Education

555. In the chapter on the Content of Secondary Education we gave pride of place to that enlightened care for the bodily well-being of boys and girls which includes, but is much more than, physical training in the narrower sense. A reference to our timetables will confirm that we accept the Scottish Education Department's requirement of 4 or 5 periods weekly as a reasonable minimum. Our regret is that Scotland as a whole is far from giving real effect to it.

556. Much that is said about Physical Education in our Report on Primary Education† is equally applicable to at least the earlier years of the secondary school. We would stress in particular the great value of space, and not least of a little bit of "rough ground" beside a school: the importance of making physical exercises supplement and not supplant the "natural and restless activity of children"; the need to respect the spontaneous play of youngsters and to avoid over-organising their every movement; and lastly the very special value, both physical and moral, of swimming.

557. If we attempt no very detailed consideration of Physical Education, we are deterred by more than the layman's awareness of his own limitations. We are satisfied that in general teachers of Physical Education are making good and enlightened use of the time and resources available; and we are forced to recognise that proposals pitched too high only make a mockery of Scotland's plight in regard to buildings and equipment in the years immediately ahead. Accordingly, instead of cataloguing obvious demands that cannot be met for many more gymnasias, playing fields, swimming pools, spray

*"Education for the Consumer", page 21 - H.M. Stationery Office, 1935.

†Paragraphs 118 to 126.

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baths and remedial clinics, we content ourselves with suggesting certain modest ways in which the schools can even now promote the physical well-being of their pupils.

(1) They can refuse to let a quite natural impatience over the multiplying of "extraneous" duties blind them to the immense importance of the milk and meals schemes, reflecting that, since nutrition is at least as fundamental as exercise, they may be doing as much for health in the dining hall as in the gymnasium.

(2) They can accept as well founded the extreme importance all medical and gymnastic experts attach to a daily period of physical exercise, and be prepared to submit to certain timetable and other inconveniences to make it possible. It is hopeless to wait till everything can be done in a gymnasium. It may have to be the classroom or the playground or any corner of open space, as weather and circumstances allow, and that clearly implies

some co-operation of the staff generally with the physical training teachers. Conscious though we are of the many difficulties, we recommend that the secondary schools be asked to make the daily period of physical exercise a reality. This "period" may be considerably less than 40 minutes. We have been assured that even half that time allows of physical exercise that is worthwhile, provided it is not used up in needless changing of clothes; and, so long as the shortage of gymnasia persists, there is obvious advantage in thus fitting in almost twice as many classes into the school day.

(3) The younger members of a staff at least can in some measure repair the deficiencies in playing fields by sharing with their pupils other out-of-doors activities such as swimming, hiking, botanising and hill climbing. Many a teacher has found ample reward for some such sacrifice of leisure in a new understanding of his pupils and a happily changed classroom relationship.

(4) Teachers should be vigilant to note and prompt to report any signs of malnutrition or of slight physical defect, in order that early action may be taken.

(5) By a consistently right attitude and a wise word in season, teachers can do much to create the atmosphere in which the more formal work of physical training is carried through with maximum effect, and a school comes to be right-minded about healthy living.

558. It would, however, be an impertinence to require this almost missionary effort for health from the schools themselves, did we not at the same time remind education authorities that it must be matched by an enlightened zeal on their part which has not been everywhere evident in the past; nor must the impossibility of doing all that the schools need be made an excuse for doing anything less than the maximum that the national resources allow.

559. We note briefly points to which our attention has been drawn:

(1) The provision of physical training staff should be generous enough to allow of remedial work being carried out in close co-operation with the school medical officers.

(2) The practice which obtains in some smaller secondary schools of having boys taught by a physical training instructress or girls taught by an instructor is bad, and we recommend that the Scottish Education Department should disallow it.

(3) More adequate provision of gymnasia should not wait on the possibility of permanent building. Much could be done with huts:

indeed a usable gymnasium requires astonishingly little except a sound floor and good lighting and ventilation.

(4) Special value attaches to physical exercises performed in the open air; and, so far as climate allows and the work does not require apparatus difficult to move, classes should be taken out of doors.

(5) A bigger place in Physical Education should be given to dancing. It is at once an exercise and an art, a complex and subtle form of expression and an unfailing source of pleasure to young people.

(6) Physical activity rarely exists in isolation from feeling and cognition. The significance of the emotional tone which normally accompanies it, e.g. in games, is fairly well recognised, but it is no less essential to remember that all physical education ought to include a mental element also. The proper carrying out of an exercise-sequence is more than a physical routine; it is an intellectual exercise as well. It is important, therefore, that pupils should understand not merely what they are to do but why they are to do it - and in a given order.

(7) Much thought should be given to extending the range of games played. It is no disparagement of football (either code), cricket or hockey to suggest that our ideas about team games have tended to become conventionalised. Moreover, if we are serious in planning games for the whole adolescent population of our towns and cities, the inventive faculty will be forced into activity by the sheer impossibility of finding enough accessible ground on which to play the games traditional in this country. Cricket takes 2-3 acres for 22 players (or more strictly for 13), Rugby 1½ acres for 30, and Soccer and Hockey each fully an acre for 22. Such "spaciousness" was possible when we catered only for the few, but it is difficult to see how it can be extended to the many. This is a problem of great practical importance, and we recommend that it be the subject of immediate expert inquiry.

13. Religious Instruction*

560. In giving this section the narrower title of Religious Instruction we are not forgetful of that greater whole, Religious and Moral Education, of which instruction is only a part. We stressed the other in our Report on Training for Citizenship,[†] and its supreme importance is presupposed in all we have written about secondary education. Worship and the influence of good men and women pervading the whole life of a school are spiritual forces for which no formal instruction, however effective, could ever be a substitute. But, on the other hand, Christian influence and atmosphere cannot in the end survive without knowledge, and there is real need to ensure for this generation some understanding of the great affirmations of the Christian faith and of the Bible as their basis.

561. The Secretary of State's Memorandum on "The Provision made for Religious Instruction in the Schools of Scotland"[‡] contains an excellent historical resume and a statement of the present position which make it unnecessary to traverse the same ground in this Report. It will suffice to recall that the Act of 1872 empowered the newly established school boards to continue the custom of giving instruction in religion; that almost all the boards exercised this power; that the Education (Scotland) Act of 1918 confirmed use and wont;

*This section is not intended to apply to Roman Catholic Schools.

†Cmd. 6495.

‡Cmd. 6426.

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and that the place of Religious Instruction was further secured in the Local Government (Scotland) Act of 1929, in which it was laid down that it should not be lawful for a council to discontinue the provision of instruction in religion unless and until a resolution in favour of such discontinuance, duly passed by the council, had been submitted to a poll of the electors for the county or burgh taken for the purpose, and had been approved by a majority of the electors voting thereat.

562. It may fairly be claimed that the existing provision, always with the safeguard of the Conscience Clause, is approved by the mass of our people. We share the opinion, widespread throughout Scotland, that, since we inherit a Christian tradition and the Christian Church is nationally recognised in Scotland, Christian instruction should find a place in every secondary school. This opinion we have already expressed in our Report on Training for Citizenship,* and we now reaffirm our recommendation that in every secondary school two periods weekly be allocated to Religious Instruction at all stages. But we must stress again that, as Religious Instruction is to be neither inspected nor examined, there is real danger of its being neglected in favour of subjects that form part of the School Certificate or Higher School Certificate syllabus, unless the two weekly periods are definitely required by regulation of the education authorities and the regulation is strictly enforced. Our present purpose, then, is not to discuss whether or why we should teach religion in schools, but rather to consider how it may best be done.

563. There is a great deal in the existing situation for which we may be thankful, not least the increasingly friendly co-operation of church and school. Nevertheless, much of the evidence we received revealed serious defects in the teaching of Scripture in Scottish secondary schools, defects attributable in the main to the fact that many teachers have been obliged to take the subject who lacked the necessary conviction or the necessary knowledge or both.

564. The taking of Scripture by teachers who lacked personal conviction resulted largely from the regulation that the time or times for any religious observance or instruction must be either at the beginning or at the end of the school meeting, a requirement most easily met by confining all the Religious Instruction to a few periods and calling on the services of almost the whole staff. Now, however, the Education (Scotland) Act, 1945, gives that complete freedom as to

times which we recommended in the Report on Training for Citizenship,* and a headmaster should seldom have difficulty in finding for this work sufficient colleagues with at least one of the two qualifications necessary, the personal conviction that gives life and sincerity to the teaching.

565. But the problem remains of securing that necessary knowledge which is the other qualification, and we find it strange that so little attention has been given to this in the past. Devoutness and good intentions are no substitute for adequate scholarship; and it should be obvious that if teaching without conviction leads to insincerity, equally surely does teaching without knowledge fall into dull routine and ineffectiveness.

566. In regard to qualifications, there are two classes of teachers to be considered separately; those taking the Religious Instruction of pupils aged 12-16, and those responsible for the work at the top of the senior secondary school. For either purpose, we regard the present training college course of 30 lectures available for ordinary and honours graduates as wholly insufficient,

*Cmd. 6495.

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though a course of this extent on the methodology of Scripture teaching would be appropriate for students already well equipped with Biblical scholarship.

567. In Chapter XIV of our Report on the Training of Teachers* we indicated that a year's course in Biblical studies of M.A. Degree standard would be adequate preparation for teaching Scripture in junior secondary courses, and we record with satisfaction that the University of Aberdeen has recently instituted such a course in the Faculty of Arts.

568. For the teacher who ventures to tackle those eagerly disrespectful critics at the top of the senior secondary school, we hold that a full specialist qualification is necessary. Since, however, there has been some misunderstanding of the term "Scripture Specialist", we wish to make it clear that we have in mind not someone divorced from the general life of the school or one whose appointment will preclude others from taking a part in Religious Instruction, but a trained teacher and regular member of staff who, while taking a full share in all school activities and some part in the teaching of secular subjects, will have a major qualification in Theology and will find his main interest in the field of religious education. We assume, too, that such a "specialist" would be employed and superannuated on precisely the same terms as any other secondary teacher.

569. The very general approval accorded to the "Syllabus of Religious Instruction", issued in 1930 by a joint-committee of the Church of Scotland and the Educational Institute of Scotland and now republished after thorough revision, makes it unnecessary to enter into detailed discussion of the content of religious education at the secondary stage. It is enough to observe that, while in the first three years of the course the Old and New Testament Scriptures will naturally be the basis of study, increasing attention should be given

thereafter to those more general questions of religion and ethics in the treatment of which senior pupils are keenly interested and responsive to informed guidance. It is extremely important that this teaching, however authoritative, should not be in a bad sense authoritarian; and we believe it will fail of its purpose unless the teacher is wise enough to efface himself a good deal and to draw these older boys and girls into the expression of their own views and difficulties. The atmosphere must be much more that of the discussion group than of the lecture-room.

570. While we lay great stress on the necessity of ensuring that this, like all other subjects, is entrusted to none but qualified teachers, we lay equal stress on the importance of ensuring that no teacher is in any degree penalised by being either unwilling or unable to give Religious Instruction. Nothing must be done to menace the intellectual and moral integrity of any teacher. We recommend therefore, that headmasters be left free to allocate Religious Instruction to such of their colleagues as are willing and able to undertake it: and that neither on forms of application nor at interview should any candidate for a post in a secondary school (unless, of course, a post as Scripture Specialist) be asked whether he is willing to undertake such teaching.

571. If at any time a headmaster finds that the number of teachers on his staff, willing and qualified to take Religious Instruction, is insufficient, it would, in our view, be entirely proper to intimate in the advertising of a vacancy that the person appointed must be prepared to teach Scripture. But the right point at which to make this clear is in the advertisement itself, so that teachers

*Cmd. 6723.

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who for whatever reason cannot satisfy this requirement may be spared the labour and expense of a useless candidature.

572. Lastly, we recommend that education authorities should provide maps, reference books, commentaries and other aids to Scripture teaching, and we suggest that these might well include sufficient copies for class use of a good modern translation of the Bible, to be used when pupils are studying the thought of the New Testament Epistles or certain non-narrative parts of the Old Testament.

14. Timetables

573. It is with no little reluctance that we have committed ourselves to timetables at all, realising as we do how easily they may be misinterpreted or given a finality we never intended. But we are proposing considerable changes in the content and balance of secondary education, and we recognise as both reasonable and inevitable the demand that we should try to do what the practical educator will certainly have to do, in the measure that our recommendations take effect - translate them into terms of the familiar school week.

574. The timetables set out below are at many points suggestive only, and in particular, we cannot anticipate just where the allocation of

times may be more flexible, once the conditions governing presentation for the School Certificate are laid down.

TIMETABLES FOR FOUR-YEAR COURSES

Periods in Hours and Minutes

1—40 minutes. 4—2 hours 40 minutes. 7—4 hours 40 minutes.
 2—1 hour 20 minutes 5—3 hours 20 minutes 8—5 hours 20 minutes.
 3—2 hours. 6—4 hours. 9—6 hours.

| SUBJECT | Ist Year | IIrd Year | IIIrd Year | IVth Year | Ist Year | IIrd Year | IIIrd Year | IVth Year |
|---------------------------|------------------|-----------|------------|-----------|------------------|-----------|------------|-----------|
| | (1) Two-Language | | | | (2) One-Language | | | |
| | English | 5 | 5 | 5 | 5 | 6 | 6 | 6 |
| Social Studies | 4 | 4 | 6 | 6 | 4 | 4 | 6 | 6 |
| Music and Art | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Mathematics | 5 | 5 | 5 | 5 | 6 | 5 | 6 | 6 |
| General Science | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| Physical Education | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Religious Education | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Handicraft | 2 | 2 | 2 | — | 3 | 3 | 2 | 2 |
| Domestic Subjects | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 |
| Language | 5 | 5 | 4 | 5 | — | — | — | — |
| Second Language | 5 | 5 | 4 | 5 | — | — | — | — |
| | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |

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| SUBJECT | Ist Year | IInd Year | IIIrd Year | IVth Year | Ist Year | IInd Year | IIIrd Year | IVth Year |
|---------------------------|------------------------------|-----------|------------|-----------|----------------------------|-----------|------------|-----------|
| | (3) Technical | | | | (4) Technical—no language | | | |
| English | 6 | 6 | 5 | 5 | 7 | 7 | 5 | 5 |
| Social Studies | 4 | 4 | 6 | 6 | 4 | 4 | 6 | 6 |
| Music and Art | 4 | 4 | 2 | 2 | 5 | 5 | 4 | 4 |
| Mathematics | 5 | 5 | 5 | 5 | 6 | 5 | 6 | 6 |
| General Science | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Physical Education | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Religious Education | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Technical Subjects | 6 | 6 | 8 | 8 | 6 | 7 | 9 | 9 |
| Language | 5 | 5 | 4 | 4 | — | — | — | — |
| | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| | (5) Domestic | | | | (6) Domestic—no language | | | |
| English | 6 | 6 | 5 | 5 | 7 | 7 | 6 | 6 |
| Social Studies | 4 | 4 | 6 | 6 | 4 | 4 | 6 | 6 |
| Music and Art | 4 | 4 | 2 | 2 | 5 | 5 | 5 | 5 |
| Mathematics | 5 | 5 | 5 | 5 | — | — | — | — |
| Arithmetic | — | — | — | — | 5 | 5 | 4 | 4 |
| General Science | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Physical Education | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Religious Education | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Domestic Subjects | 6 | 6 | 8 | 8 | 7 | 7 | 9 | 9 |
| Language | 5 | 5 | 4 | 4 | — | — | — | — |
| | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| | (7) Commercial | | | | (8) Commercial—no language | | | |
| English | 6 | 6 | 5 | 5 | 7 | 7 | 6 | 6 |
| Social Studies | 4 | 4 | 6 | 6 | 4 | 4 | 6 | 6 |
| Music and Art | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Mathematics | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 |
| General Science | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Physical Education | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 |
| Religious Education | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Commercial Subjects | 3 | 3 | 5 | 7 | 4 | 4 | 7 | 9 |
| Handicraft | 3 | 3 | 2 | — | 3 | 3 | 2 | — |
| Domestic Subjects | 3 | 3 | 2 | — | 3 | 3 | 2 | — |
| Language | 5 | 5 | 4 | 4 | — | — | — | — |
| | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| | (9) General—less able pupils | | | | | | | |
| English | 7 | 7 | 6 | 6 | | | | |
| Social Studies | 4 | 4 | 6 | 6 | | | | |
| Music and Art | 5 | 5 | 4 | 4 | | | | |
| Mathematics | 5 | 5 | 5 | 5 | | | | |
| General Science | 4 | 4 | 4 | 4 | | | | |
| Physical Education | 5 | 5 | 4 | 4 | | | | |
| Religious Education | 2 | 2 | 2 | 2 | | | | |
| Technical Subjects | 8 | 8 | 9 | 9 | | | | |
| | 40 | 40 | 40 | 40 | | | | |

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575. We suspect that the timetables will come under fire from opposite quarters. To the convinced upholder of the older disciplines we shall seem to have clipped dangerously close the time allowances for Mathematics and languages. We reaffirm our hope, however, that if the reforms we have proposed in the teaching of these subjects are carried out, it will be possible to cover the essential content in the times suggested. Further, we may legitimately invite these critics to consider whether the place we have given to the physical, moral, practical and affective sides of education anywhere exceeds the minimum that enlightened opinion would now accord them; and if it

does not, to tell us how else we could have secured it for them than in the way we have done.

576. On the other hand, the educational reformer passing from our chapter on the Content of Secondary Education to the timetables may feel surprise, if not disappointment, at the relatively small proportion of the total time we are giving to those non-intellectual aspects of secondary education which bulked large in the earlier chapter. It is true that we think more periods than at present should go to the non-bookish elements in the curriculum; and, had we been able to forget all the immediate difficulties of staffing and accommodation, we might have proposed at once a more drastic re-allocation of times. But, if it be argued that, because the physical and emotional sides of education are of equal importance with the cognitive, all three should have equal room in the timetable, we reject the argument as unsound. It forgets that the proportions may be much better balanced within the total activity of school life than within the narrower round of the timetable. Moreover, it ignores the fact that the function and responsibility of the school (as distinct from those of society as a whole) in regard to the three aspects of human development are markedly unequal.

577. For the physical care of children the school has indeed a responsibility, but its part is a minor one compared with that of the home, and in their games and freely-chosen activities adolescents themselves contribute much to the physical education of one another. In the same way, while the school has a clear responsibility towards the emotional and aesthetic training of boys and girls, it is a responsibility shared with many other agencies; indeed, all experience goes to condition taste and feeling. But when we come to those intellectual disciplines and branches of knowledge that are the stuff of formal schooling, then we enter a sphere where the role of the professional educator is supreme. Here society expects him to do expertly and well what others could at best attempt in an amateurish and inconsequent fashion, and we must not add to his many other difficulties that of a sheer insufficiency of time.

578. The timetables are set out in 40-minute periods, since that is the normal division of school time. Science and practical classes usually require double periods, however, and for certain purposes hour periods are suitable. Again, in Physical Education, the arrangement might well be one long spell for team games, and a short daily period of physical exercises - not necessarily always in a gymnasium.

579. No three-language course is shown, because such a course seems to us over-specialised for the earlier secondary years, nor can room be found for a third language without deliberalising the curriculum by the exclusion or undue contraction of Music and Art, Handicraft, and Physical Education - all subjects which the highly academic pupil needs at least as much as the average youngster. In the IVth Year (15-16) adequate time might be found by taking two periods from Music and Art, and one each from Mathematics, Social Studies and General Science. On this foundation a good knowledge of the

language could be built up by more specialised work during the two post-School Certificate years. Where a still earlier start in Greek is considered necessary, Greek should be the second language, the study of a modern foreign language being postponed till the post-School Certificate stage.

580. In every timetable the allowance of time to Social Studies jumps from 4 periods to 6 at the IIIrd Year. This increase expresses our conviction that when the point is reached at which History and Geography can begin to be treated systematically as subjects, three periods are the minimum that will allow of effective teaching. To limit the time to only two lessons weekly is to condemn even the most enlightened teacher to a narrow and unfruitful treatment of the subjects.

581. It should be noticed that, although even the IVth Year of the commercial course shows only 9 periods devoted specifically to Commercial Subjects, the actual degree of specialisation might be considerably greater, since Mathematics would probably be given a pronounced bias and Social Studies become largely Economic History and Commercial Geography.

CHAPTER X

TECHNICAL EDUCATION IN THE SECONDARY SCHOOL

582. The Report of the Special Committee on Technical Education* surveyed the whole field, save the part which is occupied by the secondary school. The purpose of this chapter is to complete the survey and to make clear the place we think these subjects should have in the post-primary curriculum of Scottish day schools.

583. Just because we do not recommend any general policy of setting up separate technical high schools, we feel it the more incumbent on us to state with emphasis our conviction that there must be a welcome for technical education in the secondary schools of Scotland and a great extension of it, both in short courses and in long.

584. The inclusion of Technical Subjects - woodwork and metalwork, technical drawing, and applied mechanics - is amply justified by their high educational value and by the strength of their appeal to adolescent boys: but, while these are the primary considerations, it is proper to stress certain reasons why these subjects are peculiarly important at the present time:

(1) Our education should reflect the fact that ours is a highly industrialised society, where the products of technology are all about us, and almost everyone has to handle power-driven appliances or other mechanical and electrical contrivances. We agree with the contention of one of our witnesses that in such a society everyone should have sufficient technical training to give confidence in presence of machinery and "a feeling of friendliness towards it."

*Cmd.6786.

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(2) Our material prosperity depends on the well-being of our industry, which under conditions of unprecedented competition must recruit a larger share of the best brains in the country. The need for first-class research workers, designers and leaders of production is clamant and must be met if we are to remain an efficient industrial nation.

(3) In a time of rapid industrial change, the adaptability of young people to re-training becomes extremely important, and we believe that a basic education in Technical Subjects would conduce to this end.

(4) While modern industrial organisation and practice may require a smaller number of skilled craftsmen, the degree of skill called for is higher than ever, and this makes it imperative that the spirit of fine craftsmanship should be fostered in our secondary schools.

585. If Technical Subjects are to have the place they merit, there are four important conditions to be fulfilled.

1. Minimum Period of Instruction

586. As we have already recommended, all boys must have at least a minimum of instruction in the use of tools and in the interpretation of simple working drawings *throughout* the first three years of the secondary course. Even if this minimum can be no more than a double-period (80 minutes) weekly in a two-language course, it is of great value. The boys concerned will be the better for it; the standing of the subjects in the school will be enhanced by the very fact that all boys take part in them; and - a very important point on this - general foundation able boys who have followed an academic curriculum up to School Certificate will find it possible to build a sound knowledge of Technical Subjects by two years of more intensive study in the VIth Form.

2. Adequate Time Allowance and Equipment

587. For those who take a full technical course from the outset, both the time allowance to the subjects and the provision of equipment must be adequate.

588. Our expert witnesses made no extravagant demands for time. Indeed, they asked for nothing that we felt to be in the least incompatible with the general and balanced education which we desire for all young people during the years of compulsory schooling. Their recommendations, which we make our own, are embodied in the following time-allowances, and a reference to our suggested timetables (para. 574) will show how Technical Subjects stand related in each case to the rest of the course. We would add that these time-allowances, which are expressed in 40-minute periods, presuppose the extension of the existing pre-apprenticeship courses to cover other industries and that the entrance age to such courses will be the statutory school-leaving age.

| Serial Number of Course | Course | Ist Year | IIInd Year | IIIrd Year | IVth Year |
|-------------------------|-------------------------------|----------|------------|------------|-----------|
| (3) | Technical with a language ... | 6 | 6 | 8 | 8 |
| (4) | Technical—no language ... | 6 | 7 | 9 | 9 |
| (9) | General—less able pupils ... | 8 | 8 | 9 | 9 |

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589. We are advised that for these courses the following power-driven tools (with individual drives) are required:

(1) WOODWORK

- 1 circular saw (for instructor's use).
- 1 jig saw or a small totally enclosed band saw.
- 2 wood-turning lathes.
- 1 power-driven morticing machine.
- 1 buffing machine.

(2) METALWORK

- 4 centre lathes (4"-6" centres).
- 1 shaping machine (8"-10" stroke).
- 1 bench drill.
- 2 pillar drills.
- 1 tool grinder.
- 1 hack saw.

In schools where the metalwork room will be used for the greater part of the week and particularly in schools with Higher Certificate courses in Technical Subjects, a small horizontal plain milling machine might well take the place of one of the centre lathes. For applied mechanics the usual range of equipment provided for Physics should be supplemented by large scale models of representative machines, e.g., simple and compound wheel and axle, block and tackle differential pulley block, screw jack, worm and worm wheel, crab winch or geared jib crane. As we stressed in Chapter VII, the expenditure on such equipment spread over many years is a very minor item in the whole cost of running a school, and we trust that, in a development fraught with so much benefit to the country, education authorities will construe their obligations very generously indeed. We suggest that they might try how far the necessarily more modest equipment of small schools could be supplemented by the use of mobile workshops.

3. Full Status for Technical Subjects

590. It is high time the senior secondary school underwent a change of heart and became willing to give technical education the full status to which it is entitled. There is bitter and justified complaint that year after year the intake of the senior secondary schools is creamed for the literary courses, with the result that a boy of first quality rarely, if ever, finds his way on to the technical side. This is indefensible, and the position will not be satisfactory till the technical course with one language is given complete parity with the general two-language

course. And the proof that headmasters are giving it such status will be the very simple one—that the course is recruiting a substantial share of the ablest boys. Both at the 12-16 stage and in the VIth Form Technical Subjects should in the eyes of all be good enough for the very best.

591. Without minimising the responsibility of the schools themselves for the existing situation, we draw attention to two factors militating against the general development of Technical Subjects in the senior secondary schools:

- (1) The attitude of the universities - the rigidity of their demand for a foreign language pass in the entrance requirements,* their grudging

*Cf. Report on Technical Education (Cmd. 6786), page 47.

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recognition of a pass in Technical Subjects, and, not least, the preference sometimes expressed for engineering students who have done only Mathematics and Pure Science at school. This last is justified by the claim that such students almost invariably do better than those who have had Applied Science. We admit the fact, but read it differently. If all the ability of our schools is shepherded into the "pure" subjects, the results at the university stage will be precisely what they are at present. But we suggest that, if a reasonable proportion of first-rate boys were allowed to add Applied Science to their Mathematics and Pure Science at school, the university faculties of engineering would have a different story to tell.

- (2) Scottish industry has not, in general, provided an avenue for boys with the Senior Leaving Certificate, but has tended to treat them in the same way as boys beginning their apprenticeship at sixteen. Recently, however, a number of important engineering firms have revised their apprenticeship schemes to make suitable provision for these older and more highly qualified boys, and we hope their good example will be widely followed.

4. Realistic Treatment of Other Subjects in Course

592. There must be unity of spirit and purpose running through the whole of a technical training. Accordingly, it is not enough to have a considerable mass of practical work embedded in a school course, if the other constituents of it are all treated in an abstract and academic manner. We are not suggesting that the English and Geography, the Mathematics and Science of a technical course are to be narrowly vocational, but we do hold that all these subjects must be realistically treated by being directly associated with the world the pupil knows, if maximum interest and effort are to be secured. It is not sufficient that syllabuses should be meaningful for those who frame them: it is essential that their purpose and relevance be clear also to the pupils who follow them. The application of this to individual subjects belongs to the chapter on curriculum; but it may obviate

misunderstanding if we say here that our argument does not lead us to advocate a special kind of Mathematics or Geography for technical pupils; what we do believe is that the treatment of Mathematics or Geography which will be effective with such boys is precisely what will suit the generality of secondary pupils.

5. Content of Courses

(1) SCHOOL CERTIFICATE COURSE

593. The content of a School Certificate Course in Technical Subjects need not differ radically from the syllabuses for three-year courses outlined in the Scottish Education Department's Memorandum.* The additional year will be well used, if it allows of a fuller and unhurried treatment of the existing programme.

594. During the first two years the time available would be shared more or less evenly among woodwork, metalwork and technical drawing. The

*Memorandum on Technical Subjects in Secondary Schools. H.M. Stationery Office, 1938. Price 6d.

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additional periods in the IIIrd and IVth Years make possible the inclusion of applied mechanics, for which the pupils are now ready.

595. While this may be considered the normal content of a junior technical course, it must be remembered that in areas where a particular industry, e.g. textiles, predominates, it may for educational as well as practical reasons be wise not to focus the training too sharply on wood and metal work but to direct it rather to the distinctive materials and techniques of the local industry.

596. We recommend these modifications of the approved syllabuses:

WOODWORK - Constructive work such as building the model of a house should be encouraged, as well as the usual forms of cabinet-making. Some practice in wood-turning should be given. The making of a simple pattern and the casting of it in an alloy of low melting point should also be included.

METALWORK - Machine-tool practice should be given from IIInd Year onward, occupying from a fifth to a quarter of the time devoted to metalwork. There is no suggestion that this should supersede training in hand tools, but it is obviously desirable in an age like the present that boys should be introduced to machine tools and get the "feel" of them before they leave school.

(2) COURSE FOR WEAKER PUPILS

597. For pupils of limited ability the syllabuses outlined would need to be adapted, care being taken to select practical work models of easy type and construction and to limit technical drawing to exercises

on the plans, elevations, and very simple sections of some of these models and of suitable familiar objects.

598. Pupils of this type may lack aptitude for and sustained interest in work in wood and metal, in which case other kinds of craftwork should be tried. Plastics, for example, are obtainable in a variety of forms. They are easily worked and pleasing to handle, and they can be filed, sawn and chiselled, thus giving a sound training in measurement and the use of tools and also in appreciation of good shape and fitness for purpose.

599. With such pupils, the treatment must lean far towards the project method and make much sacrifice of logical sequence to immediate interest. Benchwork can have its own brand of pedantry, and it is poor comfort to reflect that one has given a boy a most thorough and progressive training in the use of tools, if the whole business has been so dreich [dreary] and dull that at the end of it he has no wish to use them. Although we have dealt with the practical training of these weaker boys under "Technical Subjects", we have had in mind nothing formal or specialised, but a wide, general course rich in craftwork.

(3) TECHNICAL COURSES FOR GIRLS

600. Throughout this chapter the words "pupil" and "boy" very naturally alternate as synonyms, but we cannot dismiss the possibility that there may have to be some provision of technical training for certain girls, for the experience of the war years, the development of new industries in Scotland and the possible scarcity of male skilled labour may well lead to an increased entry of women into technical employments.

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601. We consider that, if a girl seriously wishes to take the benchwork or other technical training available for boys of her age rather than its usual feminine counterpart, a training in the domestic arts, she should be free to do so. Such a proposal should not as a rule create much difficulty, since in most co-educational schools the two forms of practical training are synchronised for each class.

602. But a further question remains. Even if girls did not react favourably to Technical Subjects as provided for boys, are there other forms of such work in which they would find interest and success? Are there different types of school workshop from those we have evolved, where certain girls would be at home? We think it possible that there are, and we recommend that this be a subject of inquiry and experiment in one or more of the larger centres of population.

(4) THE VITH FORM

603. At the VIth Form stage (16-18) two groups of pupils in Technical Subjects will need to be provided for:

- (1) Pupils who have followed a general or literary course for the School Certificate and now desire to carry Technical Subjects to the same standard. This should be relatively easy. Given even the compulsory minimum of

benchwork throughout the first three years, such pupils should cover the work comfortably in two years, with a time-allowance to Technical Subjects of 10 periods weekly.

(2) Pupils who have taken Technical Subjects in their School Certificate and wish to continue the study of them.

604. The technical work for these boys should still be as general as possible and not limited to a particular section of industry. We are, for example, unable to accept the suggestion that aeronautics should be introduced as a separate subject. That seems to us much too highly specialised: all that can reasonably be asked is that in the air age the teachers of Mathematics and Technical Subjects should draw examples where suitable from aeronautics, and should encourage by their interest school clubs for the construction and flying of model aircraft and gliders.

605. Moreover, it will have to be remembered that these are youths with no experience of industry and that the schools must resist the temptation to carry their work in technical drawing and applied science far beyond their real knowledge of industrial techniques. It is easy, for instance, to deal with problems of boilers, condensers and pre-heaters, but where boys are unfamiliar with the actual plant, this becomes a rather pointless juggling with formulas.

606. Practical work in wood and metal should, of course, be continued; so also should technical drawing and applied mechanics. With the last might be incorporated such elementary study of heat engines as is profitable in a school course.

607. There should be provision also for some training in design from the aesthetic standpoint. This should, as far as possible, be related to the practical work and should aim at making the pupil "proportion conscious" and "colour conscious", since a knowledge of the factors governing good proportion and colour harmony is desirable for the public generally and highly important for the future industrialist.

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608. We recommend, too, that a Higher School Certificate course in Technical Subjects should include some study of the industrial and social history of the last 150 years. Such a course should give, for instance, some understanding not only of the social impact of industrial developments but also of the structure of modern industry, the raw materials used and their processing, together with the fundamentals of industrial and business organisation and the elements of descriptive economics.

609. Visits should be paid to industrial plants, and full use made of both diagrammatic and pictorial films with commentary. There should be an adequate technical library, including prints and photographs of specimens of good craftsmanship.

610. An advanced course of this wide scope obviously implies the cooperation of the teachers of Art, History and Economics.

611. Lastly, what we have said about the need for a realistic approach to all the subjects of a technical course still applies even at the post-School Certificate stage. It is not a question of making things easier: the difficulties of an "applied" subject are as numerous and challenging as those of a "pure" one. But different minds are quickened in different ways; and if, ignoring the diversity of the real, we seek to make all conform to one academic pattern, we cast away the greatest single aid to learning - that spontaneous interest which alone seems to have the power to mobilise the total energies of the self for the work on hand.

612. As postscript to the chapter, we express the hope that, apart from specific courses in Technical Subjects, most if not all VIth Form boys will elect to spend a little time in the workshops. The more verbal or abstract their main studies are, the more would they benefit from a couple of periods a week at the bench. For it is a salutary thing to escape at times from the world where a mistake means a false concord or a wrong answer into that other and hardly less important world where a mistake means a knock on the thumb or a piece of actual material irretrievably spoiled.

CHAPTER XI

SECONDARY EDUCATION IN RURAL AND HIGHLAND SCOTLAND

1. Purpose of Secondary Education in Rural Areas

613. The problems of education in rural areas appear to provoke extreme and conflicting opinions. To many, dismayed by the progressive decline in country life and population, it seems that the prime purpose of rural secondary education should be to stop the drift to the towns and keep country-bred boys and girls within their native environment. Others hold that, apart from administrative difficulties, there is no problem of rural education at all, since secondary schooling should be in all essentials the same throughout Scotland.

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614. To the former view we see the gravest objections. Suitability for rural life is by no means coincident with country birth and upbringing, and to make it the chief end of rural education to stop the flight from the soil is to offend against every reasonable canon of freedom and equality of opportunity. Moreover, any such attempt will surely fail, for movements of population are the result of social and economic forces too powerful to be countered by education alone. All our witnesses were disposed to accept the verdict of Mr. Joseph F. Duncan - "The greatest illusion under which we are suffering is that anything taught in the schools will prevent social changes from taking place. The school cannot prevent the drift from the rural areas."

615. Our attention was drawn to the remarkable economic revival and arrest of depopulation in Orkney and in Lewis and Harris, but despite these heartening exceptions, it remains true that rural and Highland Scotland generally cannot offer young folk enough to prevent their migrating to the towns. Our evidence was that for the average boy, destined in most cases to remain a wage earner, economic opportunity

is less in the country than in the towns, though not startlingly so; but that for the able boy or girl rural prospects are meagre indeed compared with the scale and variety of opportunity in the big centres. Without trenching on territory not our own, we wish to stress one point in this connection. It is sometimes argued that a prosperous agriculture would in itself provide great opportunities for the able girl and boy. But surely this must depend on the nature of the prosperity. Agriculture might prosper in the conventional sense, as it has done during the war years, but, if it remains easy for capital even without skill to secure a farm but impossibly hard for skill devoid of capital, then it is difficult to see how the situation would be substantially improved. But economic drawbacks are not the sole cause of the exodus to the towns. The inadequacy of community life in village or parish is keenly felt, as is the lack of facilities for recreation and entertainment. Admittedly, road transport and broadcasting have in their different ways broken the sense of isolation in remoter places, and the admirable work of the Women's Rural Institutes and Young Farmers' Clubs points the way to an enrichment of country life in which extended education may have a fruitful part to play. Moreover, great changes, the full import of which cannot be foreseen, will come over rural life with the break up of large estates, the much increased scale of afforestation and the development of hydro-electric schemes. But, whatever amelioration the future may bring on either the economic or the cultural side, we must face the fact that meantime the country cannot hold the bulk of its young people. Accordingly, we reject any conception of rural secondary education which tacitly assumes that children country-bred are in any sense "*adscripti glebae*" [tied to the land] or that the school may justly conspire with circumstances to narrow their opportunity in any way. A good secondary education for rural as for town children must be one that gives them the fullest opportunity for social usefulness and personal advancement in either town or country, according as temperament and talents incline them.

(1) ENVIRONMENT OF THE CHILD

616. But, while we reject the view that rural education is something apart - and properly designed to keep its products apart - we do not accept the opposite extreme that there is nothing distinctive about secondary education in the country save the administrative problems raised by distance and lack of numbers. To go that length is to deny the fundamental truth that education must be rooted in reality, finding its material and its starting point in the environment of the child.

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617. Valid even for the man-made surroundings of the town pupil, this doctrine is compellingly true for all whose lot is cast amid the elemental experiences of country life, beholding the processes of the seasons, familiar with "the swift importings on the wilful face of skies", and ever surrounded by the wonder and variety of living things.

(2) TREATMENT OF SUBJECTS

618. The Spens Report* drew a useful distinction between schools which have imparted a "rural colour" to the curriculum and those

which have developed an "agricultural bias". Of the two we regard the former as much the more important conception and capable of far more general application. This rural colour should tinge almost the whole area of the curriculum. A literature so rich as ours in the delighted portrayal of nature and the unspoiled joys of country life should come home to rural children with a vividness and an impact of reality hard for the town child to experience, and in the traditional Scottish airs and dances country children have a native expression of individual and community feeling.

619. Again, the Scottish countryside, with its rich and varied historic associations, provides the natural starting point for young people's thinking about the past, while geography can find no saner beginning than in the careful observation and survey of the familiar locality and in the close study with large scale maps of all it has to tell about nature's ways and man's.

620. To give a rural emphasis to mathematics is only to bring much of calculation and measurement back to its place of origin, and the unforced applications of arithmetic and geometry to the activities of country life are too obvious to need elaboration.

621. It is, however, in science most of all that it is possible to give a distinctively rural cast to secondary education, and especially to secure that heightened emphasis on biological teaching which enlightened opinion so strongly demands. We hold the view that all science up to School Certificate stage should be general science and that fullest use should be made of concrete "centres of interest". In this respect the rural secondary school seems to us most favourably placed, for in the school garden and orchard plot, the apiary and the poultry run, it has most valuable adjuncts to the more conventional laboratory provision. Nor need there be any lack of either scope or variety in an elementary science course that ranges over the biological study of plants and animals, insects and birds, meteorological observation, the simple chemistry of rock, soils and food and the varied application of physical and electrical principles to agriculture in an age of mechanisation.

622. One point we stress as the result of evidence laid before us: the amount of ground to be attached to a school, and the extent to which such rural activities as bee-keeping or poultry raising are undertaken, should be determined by educational considerations alone, not by the very understandable concern to spare the schoolmaster and his boys an impossible burden of manual labour. Accordingly, we recommend that for this necessary routine work adequate hired assistance should be provided, account being taken of the work involved in firing glass-houses and of the need for extra assistance over holiday periods.

*See footnote to paragraph 102.

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(3) TRAINING AND ATTITUDE OF TEACHERS.

623. But all those factors favourable to the imparting of a rural colour may remain largely inoperative unless the training and attitude of country teachers are right. It is for them to convey to their pupils that "the country" means far more than a place of abode or livelihood, is

indeed a distinctive way of life, which even if it lacks certain urban amenities and rewards, retains its immemorial power to satisfy many of the deepest and noblest instincts of our human nature. We believe that our proposals for the training of teachers* will help to this good end, but education authorities must recognise how serious is the hurt to rural education caused by a shortage of suitable accommodation which compels many teachers to live at a distance from their schools, divorced from the social and cultural activities of the community in which their pupils are growing up. We recommend that education authorities should regard as a matter of urgency the provision for their teachers of living accommodation within easy distance of the school;

2. Types of Courses

624. How far and at what stage we consider an "agricultural bias" desirable in rural education will appear from what follows. Here we record the conviction, supported by evidence laid before us, that agriculture as such should have no place in the secondary curriculum within the years of compulsory schooling.

625 We go on to give some account of the present state of secondary education in rural and Highland Scotland, prefacing our remarks with a reminder of the wide diversity of conditions - in rural areas adjoining industrial belts, in country districts farther withdrawn from centres of population and in the great and almost untenanted stretches found in the Highland counties, and in certain parts of the Borders.

(1) SENIOR SECONDARY COURSES

626. Of rural secondary education, as of our national system in general, it can be claimed that the most satisfactory feature is the provision for the abler minority in the full five-year centres. The secondary schools of the larger country towns are well staffed and equipped. The quality of their Leaving Certificate work is often very high, and even if their VIth Forms miss a little of the systematic advanced tuition available in city and large town schools, in many cases they show by way of compensation the greater initiative of those who are thrown back somewhat upon their own resources. Nor does this favourable verdict need much qualification in regard to the small senior secondary schools; it is still true, as it has long been true, that some of the soundest secondary work in Scotland is being done in very small schools whose worth and importance are out of all proportion to their size.

627. But while the standards are high, the curricula of our rural secondary schools are in most cases too narrow to meet the needs of the contemporary world and to do justice to the variety of interests and aptitudes found among boys and girls at the higher intelligence levels. The bookish tradition in Scottish education and the vastly greater difficulty of providing for advanced practical instruction in a large number of small schools have combined to keep rural secondary schooling predominantly literary and oriented towards the universities and the learned professions.

*Report on the Training of Teachers (Cmd. 6723).

628. For the teaching of pure science the schools are not ill-equipped; physics and chemistry are well taught up to Senior Leaving Certificate level, and in the larger centres the work of the VIth Year is undertaken with success. The prevalent subordination of biology persists in the smaller centres as in the larger town schools, a neglect which is particularly unnatural in the former. If domestic subjects, art and music have found a place, it is, with rare exceptions, a place that does far less than justice to their value for education and for life. But the most serious deficiency of all is in the meagre provision for advanced technical education, whether on the mechanical or on the agricultural side. Our expert witnesses confirm that the necessary staffing, equipment and accommodation are largely non-existent, especially in the Highland area. Only five Scottish schools offer a course in agriculture leading to the Senior Leaving Certificate, and, if we except Wallace Hall Academy, Dumfries, the total number of such certificates awarded in the quinquennium 1938-1942 was four. During the same period Wallace Hall Academy alone had 30 certificates. Light is thrown on this surprising contrast by the fact that at Wallace Hall no Senior Leaving Certificate can be taken that does not include agriculture. This situation, in our opinion, calls for immediate action, and we make the following proposals designed to remedy it.

629. We recommend that education authorities should either singly or jointly set up for appropriate areas or regions senior secondary schools of a technical type provided with hostels. These schools should offer -

(1) Rural, domestic and technical courses (also navigation where necessary), *but not general or academic courses*, leading to School and Higher School Certificate presentation; and

(2) Intensive IVth Year courses of the same types for pupils who have completed three years in their local junior secondary schools.

630. Our reason for recommending an area or regional basis for these technical centres is that in some instances at least the number of pupils for whom a single education authority required such provision might not allow of the adequate equipment and staffing of such a school without prohibitive cost. We cannot, however, define the appropriate area or region more closely, as circumstances will vary very widely and what constitutes a sufficient "catchment area" can be determined only with intimate knowledge of local conditions. We would exclude a general School Certificate or Higher School Certificate course from these centres, on the ground that the provision for that kind of secondary education is reasonably good everywhere and that the function of the proposed new technical schools should not be complicated or distorted.

631. These area schools should have a considerable extent of ground attached, but we are not prepared to say that they should in every case run a self-contained farm. Such an arrangement would have advantages, but it has been stated in evidence that the full value of agricultural training can be secured only on a farm run on a commercial basis, and it may be that in some cases the pupils' needs

will be better met by securing the interest and friendly co-operation of neighbouring farmers.

632. While such area or regional technical schools would be the normal type, there might be circumstances where with the provision of hostels a school might meet the normal needs of its locality for senior secondary education, and at the same time provide on a residential basis the advanced technical courses for a wider area.

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633. We have no doubt that these area or regional schools should provide a "technical" course in the familiar sense, for it is indefensible that the interests and aptitudes that go to make a good engineer should be denied opportunity simply because of the accident of rural upbringing.

634. We recommend that the science course in country and Highland schools be given a definite biological and rural bias, and that there should be in these schools a wide extension of School Certificate and Higher School Certificate courses in agriculture, as defined by the Scottish Education Department.

635. We have much evidence that such developments are gravely hampered by the present regulations of the Scottish Universities Entrance Board, which (1) demand a pass in a foreign language, and (2) refuse recognition to a Senior Leaving Certificate pass in agriculture. Accordingly, in order that the above two recommendations may not be rendered in part at least inoperative, we further recommend that the Secretary of State should make known to the Scottish universities the hampering effect of existing regulations on certain very desirable developments in rural secondary education, and should urge that these regulations be amended - (1) by waiving the demand for a language pass in its present form in order that there may be room in the later secondary years for both science and agricultural science, or (2) by acceptance of science with a rural and agricultural bias as an alternative to pure science, or better still, (3) by the abandonment of a uniform entrance qualification as required by Ordinance LXX and the framing of appropriate requirements for admission to each separate faculty.

636. Just as the potential engineer may tramp the glen or the hillside, so many a city youngster may be strongly drawn to country life - may, in the words of Mr. Joseph F. Duncan, "discover a disposition for rural occupation". We share his opinion that "this disposition should be encouraged", and therefore we recommend that the other authorities either individually or in co-operation should follow the lead of Glasgow and make provision for the boy or girl who wishes a full secondary course including agriculture.

(2) JUNIOR SECONDARY COURSES

637. When we turn from the senior secondary school to the junior, from the provision for the few to that for the many, the picture becomes far less satisfactory. There are two great defects in the short course rural schools: (1) The persistence of a far too bookish curriculum, and the failure to develop adequately these practical activities which are called for both by educational needs of the pupils

concerned and by the conditions of country life: and (2) The continued existence of tiny, ill-equipped centres, where there is a semblance but no reality of secondary education.

(a) Courses too bookish

638. We do not suggest that (1) is true of every country junior secondary school, but the charge must be brought against certain rural areas and against the Highlands generally. It is notorious that most three-year schools in the Highlands have made it their main function to prepare their ablest pupils for passing on to the senior secondary school at the IVth Year stage, with consequent neglect of the much bigger number of non-bookish boys and girls who should be their primary concern. So persistent has this distortion of function been that we doubt whether it will be cured by anything less drastic than the centralisation of all academic pupils from the age of twelve. Daily travel and

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residence away from home at this early age are not to be lightly proposed, but such centralisation may prove the only way of compelling the short course schools to turn to their proper and important work and of ensuring that staffing, accommodation and equipment are adjusted to the needs of the children for whom the schools are designed. The necessary change will take time, and the obvious fact that the raising of the school age will aggravate all that is wrong in the existing situation makes it urgently necessary that reform should begin immediately.

(b) Ill-equipped Centres and Centralisation

639. In drawing attention to (2) we are much less concerned to apportion blame than to find a remedy. The facts are not in dispute. All over the Highlands and in many sparsely populated areas especially in the South, little groups of children who have completed the primary stage are kept on in one- and two-teacher schools, which lack the staff, accommodation and equipment for the education of children over twelve. In effect these children are being denied secondary education, and if such arrangements continue, the plain intention of the 1945 Act will be flouted, the abuse becoming the more flagrant with the raising of the school age.

640. Three factors have gone to produce this deplorable situation.

(1) Where centralisation is most difficult and costly, financial resources are most limited, and rightly or wrongly the education authorities concerned have shrunk from the expenditure involved despite the special grant available. The formidable nature of their problem must be frankly recognised, but we hold that the nation's intention clearly expressed in the Act cannot be ignored, nor must difficulties of finance justify the refusal to Scottish children of their statutory right to secondary education. The financial provision of the latest Grant Regulations should go far to ease the situation.

(2) Some parents in remote areas have proved completely unwilling to let their children leave home, and it must in fairness be remembered that till now the authorities' powers have been limited, since the parent had a "reasonable excuse", and therefore could not be successfully prosecuted, for failing to provide efficient education for his child if there was no public or inspected school which the child could attend within three miles of his residence and if the education authority did not provide reasonable facilities for his conveyance to and from school. Under the Act of 1945 a further limitation is placed upon the plea of "reasonable excuse": it can no longer be successfully pleaded if the authority arranges for the accommodation of the child at a boarding school or in a hostel, home or other institution, or makes other arrangements for board and lodging for him.

(3) There are the stubborn facts of geography and distribution of population. In Argyll, for instance, some half of the 150 one-teacher schools are so situated that to concentrate the children is well nigh impossible. We appreciate the extent of the undertaking and we have no facile solution to offer. But in the measure that secondary education is admitted to be not a luxury but a necessity in the child's interest and society's, the difficulties or centralisation must be overcome, even if the means adopted are costly and laborious.

641. To determine what minimum degree of centralisation will suffice, it is necessary to answer the question - what is the smallest size of school in which three years of secondary education can be given? And the answer will

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not be helpful, unless it is borne in mind that secondary education (especially in the short-course schools) must provide facilities for practical work and also the necessary conditions of community life and activity. The importance of the latter is often over-looked. Two or three older children remaining in a tiny school of little folks miss almost everything we mean by education except the formal instruction. We have expert evidence that only when at least ten or a dozen children of like age are present do a class spirit and the possibilities of play and community experience emerge.

642. Normally the rural secondary centre must be linked with a primary department, and we are satisfied that the smallest combined unit in which the needs of the secondary pupils can be met is a school with five full-time teachers plus visiting specialists. Unfortunately, it is just in the more scattered areas that the use of visiting teachers is most wasteful and least satisfactory, and we believe that the staffing of these small schools will be greatly strengthened by our proposals* for the training of semi-specialists, i.e. teachers who combine a class or general subject qualification with the ability to teach physical education, music, art, domestic, technical or rural subjects, so that the employment of visiting teachers can be correspondingly reduced.

643. We are convinced too, that the adequacy of these small rural schools depends on the provision of two all-purposes practical rooms for boys and girls respectively, and that the equipment of these rooms must be considerably more varied and extensive than has been general hitherto. Where two practical rooms are provided, there is saving of teachers' and pupils' time, because the practical work of boys and girls can be synchronised.

644. There is, however, an alternative way of dealing with the problem. In certain parts of Aberdeenshire the road system and the spread of population make it possible to establish at certain points small schools which are purely post-primary and to bring the pupils to them without their having to travel more than eight to ten miles. Such schools, with an annual intake of forty or more pupils and allowing of some sub-division, must be considered a decidedly satisfactory form of provision. The same general considerations as to staffing, accommodation and equipment would apply to them as to the combined primary and secondary unit, and the staff should be the equivalent of not less than four full-time teachers.

645. To sum up, we recommend that in future schools should not be accepted as meeting the requirements of the Code† in regard to secondary education, if in numbers, staffing, accommodation and equipment they fall short of one or other of the types we have described; and that, with due allowance for immediate difficulties, the necessary policy of centralisation should be enforced with no avoidable delay.

646. It will be clear that the degree of centralisation we desire is the minimum necessary to allow of genuine three-year secondary schools, i.e. we wish to centralise not in large town schools but in relatively small schools that preserve a rural setting and atmosphere. When residence is necessary our evidence is that in general the provision of hostels is as satisfactory as and less costly than the setting up of boarding schools. Where pupils must travel, we recommend that the distance by cycle should not be more than four or where the going is exceptionally easy five miles, and by bus, one hour's journey including walking time.

*Report on the Training of Teachers (Cmd. 6723).

†See footnote to paragraph 12.

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3. Equipment, and Teachers of Music and Physical Education

647. Lastly, for the enrichment of rural secondary education we recommend - (1) more generous provision of either semi-specialists or fully qualified teachers of music and physical education (the poor gait of many children proves that country air and fare alone are not enough); and (2) much fuller provision of pianos, gramophones, wireless sets, projectors and other visual aids. As these are necessary equipment and not desirable extras, it is the clear duty of the education authority and no other to supply them.

4. Conclusion

648. It will be evident that we can recommend no simple or uniform pattern for the organisation of post-primary schools in the rural and Highland areas. In some cases functional schools will best meet the situation; in others, what are omnibus schools at least in the limited sense that they provide both long and short courses and deal with the whole normal intelligence range. Much as we might wish it, it is clearly impossible that all rural secondary schools should be five-year centres, since such a policy would either be prohibitive in cost and wasteful of staffing, or would involve a degree of centralisation most undesirable on social grounds and certain to arouse opposition.

649. Amid the complexities of rural and Highland secondary education, we have thought it best to concentrate at this time on two big problems - how can the work of long-course and short-course schools alike be given the necessary practical emphasis and a sensible relevance to the environment of the pupils; and what is the minimum disturbance of the life of little isolated communities that will make the provision of secondary education possible at all, and thus satisfy the requirements of the Act of 1945.

650. We hope that our proposals have kept within the bounds of the practicable; and we suggest that, after a period in which the education authorities have been given that freedom to experiment which the great diversity in conditions requires, it should be remitted to a future Advisory Council to review the effects of our recommendations and the progress made.

CHAPTER XII

THE INSPECTORATE

651. We have both a general and a particular reason for devoting a chapter of our Report to the Inspectorate; the first, because of the part H.M. Inspectors have played and will, we believe, continue to play in the development of education in Scotland; the second, because we are recommending major changes in the examination system which presuppose the work of an Inspectorate unimpaired in quality and adequate in numbers.

652. If the Inspectorate of a bygone generation had a somewhat authoritarian, and at times even an inquisitorial, cast, the explanation is to be sought not in the personal qualities of the talented men recruited to that service but

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rather in the function assigned to them and the conditions under which they had to work. Their rigour was of a piece with the autocracy of the headmaster and the coercive force of the external examination. All alike were features, and it may be necessary features, of a national system of education rapidly expanding and having to consolidate its standards as it grew. But the changed educational outlook of the last quarter of a century is clearly reflected in the present attitude and work of H.M. Inspectors of Schools, for whom it can be confidently claimed that they enjoy what official status and authority alone could never compel - the trust and esteem of their co-partners in the work of education.

653. The confidence of the schools in H.M. Inspectors rests on their qualifications for the work. Always fully adequate in scholarship, and often highly distinguished, they are required in every case to have given a sufficient period of service. in schools to leave their teaching skill in no doubt. If in respect of one part of the educational field, namely the primary school, there is a departure from this sound principle, that but serves to throw into relief the general wisdom of the Department's policy. The goodwill of the schools towards H.M. Inspectors results from the sanity and enlightenment with which the latter approach the common tasks, from their evident desire to come to terms with the realities of the class-room and to bring to the solution of its problems the fruits of experience rather than oracular pronouncements.

654. It is difficult for the layman to realise how varied the duties of the Inspectorate have become, how far indeed their functions have outgrown their name. They remain, of course, the agents of the Secretary of State, charged to keep him informed as to the work and state of the schools, and, as in the past, the public may very properly look to these holders of His Majesty's commission to ensure that all who are entrusted with the education of the nation's children are about their business with honest diligence.

655. We have spoken of the special function H.M. Inspectors have long performed in the conduct of the Leaving Certificate Examination. Our proposals assign them a similar role in the examination for the Higher School Certificate, while their first-hand knowledge of the schools and ability to assess their work will be a necessary factor in the operation of the arrangements for the award of the School Certificate also.

656. But increasingly in recent years the Inspectorate have come to be looked on, and have come, we believe, to look on themselves, as above all consultants and collaborators, able to bring to the problems of any one school experience culled in many, and to contribute to the solution of difficulties a judgment at once disinterested and well-informed. To stimulate by discussion and suggestion, to spread ideas and be a link between school and school, to provoke the unreflective to thought and to awaken healthy doubts as to the sufficiency of familiar routines - in such service lies the most valuable function of the Inspectorate, and we would stress the very special value of its guidance and encouragement to the hundreds of small schools, where teachers, often inexperienced, are working under conditions of difficulty and isolation.

657. In another direction also the duties of H.M. Inspectors have multiplied. The widely expanded functions of the education authorities create the need and the occasion for constant consultation between the Inspectorate and the Directors of Education, and there falls on the Chief and District Inspectors a volume and variety of administrative tasks of which the public and even teachers are little aware. We see in this liaison work with the education authorities a valuable and necessary function of the senior personnel of the

Inspectorate; but we are concerned that it should not become unprofitably burdensome, and we accordingly recommend that for H.M. Inspectors, as for heads of schools, such adequate secretarial help should be provided as will ensure that no part of their time and energy is deflected from its proper purpose.

658. We have sought to make clear our conviction that the Inspectorate has done much for Scottish education in the past half-century and will continue to play a beneficent and important part in its development, but we believe that, if their contribution is to be as fruitful as possible, certain changes are necessary.

659. Firstly, we think that the service is not now happily named. Inspection is and will remain an admitted function of the Department's officers, but it is only one among many, and not the one to which an enlightened public opinion will in future attach any primacy of importance or dignity. Moreover, the present name is not welcome to the teaching profession. Teachers have as a rule the friendliest of feelings towards Inspectors as individuals, but professionally they dislike the conception of an "Inspectorate", and see in the perpetuation of this name some derogation from their own status. With this feeling we sympathise, nor can the objections be countered by a mere reminder that teaching is a public service. The justification for the name is to be found in past history not in any present necessity, and we find it hard to believe that, if certain other professions which have attained full stature and status were to come under public control, it would be felt necessary in the nation's interests to subject them to any comparable form of oversight. Above all, the name Inspectorate suggests incomplete emancipation from certain outmoded ideas as to the nature of education, and there seems no doubt that it engenders in some teachers a feeling of subserviency which spoils their relations with the Inspectorate, through no fault of the latter's. For the reasons given, we recommend that the Inspectorate be renamed His Majesty's Educational Service, the members of the service to be known as His Majesty's Education Officers. We do not, however, approve the insertion in the title of the word "Advisory", which stresses one single function unduly and at the same time mutes completely the proper note of authority.

660. We have indicated our opinion that inspection remains a recognised and on occasions an important function, and we are equally sure that there are times when H.M. Inspectors ought to report with great frankness. But we confess that the hurried, routine inspection of a succession of classes followed by stereotyped report seems to us a time-wasting practice yielding profit to no one and calculated to bring the whole business of inspection into disrepute. We recommend, therefore, that it be discontinued and that H.M. Inspectors be left complete discretion to examine with thoroughness and report with candour where circumstances require it, and for the rest, to devote their time to more constructive functions.

661. It is not enough that the qualifications of H.M. Inspectors should in all cases be high. They must also be relevant to the duties to be undertaken, and, as we have pointed out, this sound principle is not sufficiently observed in regard to the work of the infant and primary school. With rare exceptions, the men and women appointed to the Inspectorate are specialist teachers whose experience has been confined to secondary or technical work. Yet these recruits to the

service find their way almost at once into the primary schools, and must exercise there some degree of official authority in regard to a wide and difficult educational field of which they have no first-hand experience at

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all. This practice seems to us wholly indefensible, for it requires the young Inspector to fill the double role of expert and apprentice in a way that is fair neither to him nor to the schools.

662. One way out of this difficulty is to set up a separate branch of the Inspectorate for primary and infant schools, and to appoint to it teachers who have had successful experience at these levels. Such an arrangement, however, creates as many problems as it solves, and we appreciate the reluctance of the Secretary of State to adopt a policy which imposes obvious limitations on the ultimate usefulness and mobility of his officers.

663. But we submit that if the objection to the existing practice is not to be met by thus narrowing the commission of H.M. Inspectors, it must in fairness be met by widening their initial qualifications. In our Report on the Training of Teachers,* we suggested that one function of the Institutes of Education should be the special training of those who are to fill educational posts of high responsibility outside the schools. We recommend, therefore, that on selection for appointment to the Inspectorate, men and women should spend a suitable period under the guidance of an Institute of Education, for the two-fold purpose of gaining first-hand experience of primary and infant teaching and of enlarging their knowledge of psychology and modern educational techniques. Pending the establishment of the Institutes of Education, this work should be undertaken by the training centres.

664. We are satisfied that there must be a substantial increase in the numbers of the Inspectorate. Its members have in recent years been seriously overtaxed, and much of their work lacks the unhurried, thorough quality so necessary to its full effectiveness. And if numbers are insufficient now, they will become even more so, as the general expansion of education in Scotland adds correspondingly to the tasks and responsibilities of His Majesty's Educational Service.

665. As any recommendation for largely increased recruitment must receive the careful scrutiny of the guardians of the public purse, we add our conviction that in no direction would a comparatively modest educational expenditure yield a more assured return. And we may properly draw attention to two important respects in which the position of H.M. Inspectorate in Scotland differs from that in England and justifies a relatively larger staff:

(1) In Scotland no share in the work of inspection is taken by officers of the education authorities.

(2) In the conduct of the Higher School Certificate Examination and in the award of the School Certificate the Department and the Inspectorate will perform important and exacting duties that have no counterpart in the work of the Ministry of Education.

666. All we have said and recommended in this chapter has had a two-fold object; first, to promote in every proper way the status of the teaching profession; and second, to make the functions of H.M. Inspectors as wide as the educational needs and opportunities of the times, and their name no narrower than their functions.

*Cmd. 6723: chapter XIII.

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CHAPTER XIII

MISCELLANEA

667. In this chapter we have brought together a number of topics not logically connected but of considerable importance to the schools and in regard to which we have definite comments or recommendations to put forward.

1. A Problem of Transfer

668. We draw attention to a difficulty that arises in the transfer of pupils from primary to senior secondary schools.

669. The incidence of births is fairly even over the whole year. Primary and junior secondary schools take account of this fact by having a commencing date in January or February as well as one in August or September, but all senior secondary courses begin in the autumn only, with the result that boys and girls finishing the primary stage in December have an awkward gap before they can start on their new work.

670. The problem would disappear were it possible for the senior secondary schools also to have two commencing dates, but we do not feel justified in recommending this change in view of the following formidable objections:

(1) Unless universities and all other centres of higher studies were to follow suit, the gap would merely be shifted to the end of the secondary stage.

(2) The Scottish Education Department would be involved in the task of carrying through two Higher School Certificate Examinations every year.

(3) With the annual intake split into two independent streams, it would be impossible for the senior secondary schools to provide the requisite variety of courses without either extreme wastefulness in staffing and accommodation or such an inflation of their numbers as we consider undesirable.

671. At present this difficulty seems to be dealt with in one or other of these ways:

(1) By keeping the pupils in their primary schools through the spring and summer terms and passing them on, along with the summer stream, to begin the senior

secondary school in August. This is only possible, however, in the small number of primary schools which have some margin of accommodation. In any event, it is unsatisfactory, and bad in its psychological effects, that boys and girls should linger on for months in a primary school after they have completed that stage.

(2) By passing on the prospective senior secondary entrants, along with the rest of their age group, to the junior secondary school for the district, where they follow the usual course till the summer and are then transferred to the senior secondary school. This practice seems to us thoroughly bad. It subjects children to an unnecessary change of school and involves the risk of blunting their first keen interest in secondary work by a pointless rehearsal in the junior secondary school. Moreover, it is very unfair to the junior secondary schools, for it treats them as a mere convenience and obliges them to devote to boys and girls for whom they have no responsibility, time and thought that are due to their own pupils.

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672. This problem belongs to the senior secondary school and ought to be solved there. Accordingly we recommend that pupils who are to proceed to a senior secondary centre should in every case be transferred to it at once, when they have completed their primary schooling. The circumstances of the receiving schools and the numbers concerned vary so widely that we do not attempt to suggest a uniform procedure for dealing with these winter entrants during the period of waiting, but we do attach importance to the following points:

(1) They should not mark time in the sense of simply continuing the work of Primary V in their secondary school.

(2) Nor should they embark on the normal secondary programme, which they would perforce have to begin all over again in September, in company with the autumn entrants to the Ist Year.

(3) Their work in the ordinary bookish subjects should be entrusted to one teacher or, at most, two.

(4) These months should be used not primarily to acquire new knowledge or skills but rather to quicken intelligence and develop that touch of self-reliance that counts for so much in the senior secondary school. It would be very valuable too, if without any formal beginning of mathematics or languages, there could be some exploration of pupils' aptitudes for different types of secondary course.

2. Homework

673. There are those who hold that, in the changed conditions of our time, there is neither need nor justification for homework at any stage; and that what was valuable in the traditional home preparation, the element of individual effort, can be more effectively secured within the round of the school day. We do not accept this view. We consider that a school week of just under 27 hours, of which a third is devoted to non-bookish activities, allows of moderate and wisely regulated homework without overloading the pupils or making impossible the cultivation of individual interests. Accordingly, we recommend that, unless where home conditions are definitely adverse, secondary schools should prescribe homework on the following scale; up to five hours weekly in Ist and IInd Years; up to seven and a half hours weekly in IIIrd Year; and nine or ten hours a week in School Certificate Year, the preparation at all stages being normally spread over five nights in the week, so as to avoid undue weight of homework at weekends.

674. It is sometimes argued that better results could be got by lengthening the school day and having supervised preparation in school. Apart from the extra tax on the teacher, and the great difficulty there would be in getting schools cleaned and ventilated before evening classes invaded them, there is the serious educational objection to such an arrangement that by the late afternoon pupils are too tired to make a good job of individual preparation. On the other hand, if such preparation is fitted in earlier, then normal class-work falls to be done when pupils are jaded. Nor can all the "mental" labour be concentrated in the earlier hours and the non-bookish activities be left till the afternoon, for the latter involve the use of gymnasia, art-rooms and other special accommodation, the provision of which is so limited that it must be used all day long

675. The alternative suggestion, that there be evening preparation in school is open to two serious objections - (1) the extensive use of secondary schools for evening continuation classes, and (2) the wide areas from which

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secondary pupils are usually drawn and the undesirability of bringing them all out again on winter evenings.

676. We think there is much to be said for limited evening preparation in school where accommodation is available and pupils both need such provision and stay near enough to take advantage of it. But we are satisfied that normally secondary pupils should do their individual preparation in their own homes between six and eight-thirty in the evening.

677. Much of the opposition to homework arises from complaints about the present position in senior secondary schools: some pupils, especially girls, do too much and suffer for it; some pupils, especially boys, do little or none and seem to get away with it; too many teachers are free to prescribe homework independently to the same pupils; the incidence of homework is uneven over the week; or homework is too heavily concentrated in the winter months and then prematurely slackened or discontinued in the summer term; and so on. Not all the complaints are well founded, but we think this

important element in secondary school work requires rather more attention than it has recently been getting in some quarters at least.

678. The headmaster should feel a very personal responsibility in regard to homework and should charge some one person (normally the form teacher) with the duty of checking the nature, extent and incidence of the home study prescribed to each class.

679. Schools should never expose themselves to the charge that "The bairns do the work and the teachers hear them say it". We take it as axiomatic that homework should never involve the mastering of wholly new work, but should always be routine preparation or further practice on something already familiar, or the application of principles adequately explained and understood, Nor should homework ever be decided on hurriedly and announced when the period bell goes. Such a procedure gives poor guarantee of either the suitability or the correct amount of what is prescribed.

680. There is perhaps a tendency to overstress written homework at the expense of preparation. If the former has the advantage of being either done or not done, it has the drawback of uncertain authorship.

681. There should be a limit to the number of teachers giving a class homework on any one night. Apart from anxiety over external examinations, the greatest cause of excessive homework is the multiplicity of persons prescribing it.

682. Teachers should try to ascertain by inquiry how long pupils of different calibre actually take to do the work prescribed. The time one would have taken oneself at that age is a dangerous criterion, because, even if memory plays no tricks, the learning-rate of a future specialist teacher can hardly be valid evidence for the performance of "the average boy".

683. Remembering that equal weights must be unequal burdens on unequal shoulders, teachers should consider how far it may be possible to vary the amount of homework asked of different individuals or groups in a class. The attitude expressed in the formula "Just do for tomorrow all the examples in this exercise which you haven't been able to do in class today" is particularly hard to justify

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684. Parents should be told in writing the amount of homework expected at each stage. It should be made clear that the parent's part is not to provide a tutor or act as one, but to give the best facilities for the doing of homework that the circumstances of the household allow, and by his own attitude to make his son or daughter feel the importance of this element in school work. The folly of over-preparation and the disastrous effects of continued neglect of homework should both be made clear. The latter is by no means fully realised. Too often it is assumed that the boy who scamps his homework is no worse off than he would have been had no homework been prescribed to his class. This is far from being so. Were there no home preparation at all, the work within school would be self-contained and complete: if, however, homework is assumed as an integral part of the course but is in fact not done, then a structure is being built with many a brick missing. Experienced teachers confirm

that here is a major cause of the muddle and failure that overtake so many pleasant but irresponsible boys and girls of average ability as they move up the secondary school. Once satisfied that homework is right in amount, kind and incidence, schools should use every resource to enforce it.

685. Schools should be careful that their own extra-curricular activities are not allowed to encroach too heavily on the time of certain pupils. Similarly, it should be impressed on parents that older secondary pupils planning professional or academic careers cannot expect to have the same freedom as others to participate in youth activities on mid-week evenings.

686. Where conditions of transport compel certain pupils to arrive very early or to wait on long after end of school, provision should be made for them to use the time profitably within the building.

687. The close of this section may be an appropriate point at which to interpose a remark that bears on the Report as a whole. If the enlightened teacher or headmaster has never done the foolish things we deplore and has long been practising the good we now commend, let him not be impatient, but reflect that there are many by whom no such claim could truthfully be made.

3. School Libraries

688. The school library has not been one of the glories of Scottish education. The Carnegie Report on Libraries in Secondary Schools (1936), after referring to the meagre provision in Welsh schools, goes on - "In Scotland, judging by the information received, the position is even less satisfactory. A separate room for the library is rare: the idea that a school should possess such a room does not seem to be prevalent."

689. The publication of the Carnegie Report and the good work of the School Library Association have brought a new awareness of our shortcomings in this matter, and the following observations and recommendations are put forward in the belief that educational opinion in Scotland is ready for something more than a slow and cautious advance.

690. A secondary school library must be more than a collection of books: it must be a collection big enough to capture the interest of the pupils and to provide for much variety of tastes. Moreover, while the size of the library will naturally bear some proportion to the size of the school roll, it should be remembered that "the variety of subjects to be covered adequately is the same

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for all schools catering for the same age range",* i.e. there is a minimum below which no library can be considered satisfactory even for a quite small school. The bearing of this on school library grants made by education authorities should be noted.

691. Even a large and well-chosen collection of books does not in itself constitute a school library, for on any right view, "the library" is a place, as well as an assembly of books, and a place which in its

spaciousness, furnishing and amenities should be rich in appeal to boys and girls. We regard as eminently reasonable the judgment of the Carnegie Report that the library of a secondary school should be housed in a room big enough to take the book stacks comfortably and to provide reading accommodation for a normal class; and we recommend accordingly. On no account should the library room be regarded as accommodation available for ordinary class-teaching.

692. It is essential to the wise ordering and effective use of the library that there should in every case be a recognised librarian. Rarely will this be a full-time job: as a rule, the most satisfactory arrangement will be the appointment of an existing member of the staff. The extent of his release from teaching duties will vary with the size and circumstances of the school, but we suggest that if he is to take the work of the library seriously, he should have as a minimum the equivalent of a period a day to devote to it.

693. The library is not the concern of the English Department alone, but of the whole school, and the librarian should have the co-operation of a library committee consisting of the headmaster, teachers from different departments and representatives of the pupils. There should be regular means by which criticisms or suggestions can be conveyed to the committee from either the staff or the pupils.

694. In the earlier secondary years at least a "library period" weekly should be found for each class, during which they would gradually become familiar with the resources of the library and be trained how to use them to advantage. Senior pupils with "study periods" should work in the library.

695. The range of books should be wide enough to let the function of the library be both recreational and instructional and the library, in addition to its general stock, should be well provided with - (1) good periodicals (including the best weekly reviews of different political complexions), and (2) a considerable variety of reference books, training in the use of which is more and more being recognised as an essential of a sound secondary education.

696. Without being too precise in a matter of some complexity, we suggest that, even in a small secondary school, a library of 1000 well-selected books must be considered a minimum, while we should look to see the large schools housing collections many times bigger than that.

697. All we have said presupposes not merely a regular but a liberal annual grant from the education authority. It must be remembered that additions to the library represent only part of its necessary expenditure.

*School Libraries in Post-War Reconstruction, Drawn up by a Panel of the School Libraries Section of the Library Association and the School Library Association, 1945. Price 1s 6d.

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Apart from the cost of periodicals, there must be provision for rebinding and for replacement. This last is extremely important, for nothing so completely discredits the library in the eyes of pupils as

the retention of volumes so soiled or tattered that instead of attracting the reader they repel him. Taking all these facts into account, we recommend as by no means extravagant annual library grants to secondary schools ranging from £40 to £160. We suggest that in this matter education authorities need new standards of comparison - not with the miserably insufficient grants of the past but, in general, with the total cost of running a secondary school and in particular with the yearly expenditure on apparatus and material for the science laboratories.

4. VIth Form Study Rooms

698. We recommend that in the building or reconstructing of a senior secondary school provision should always be made for one or more small study rooms for the use of advanced pupils. Such rooms, which need not have more than a quarter of the normal area of a classroom, would be used by groups of VIth Form pupils when the library was either not available or not so suitable for the work in question. Incidentally the availability of such small rooms for tutorial periods with limited numbers of advanced pupils would be a real saving of the normal school accommodation.

5. Marks and Terminal Reports

699. We think that in the marking of tests and in the form of terminal reports issued to parents many secondary schools are open to the charge of ignoring quite elementary mathematical or statistical principles applicable to examination data. The commonest form of report is one that gives the parent a list of percentage marks secured by his offspring. In arriving at these marks the various subject teachers have probably followed their own widely differing ideas of what constitutes fair marking. No awkward questions have been raised about median scores and spread of marks in the several subjects, nor does the report give any sign whether sections or classes of different quality have taken the same or different examination papers. Obviously then, the parent, shielded from the corroding doubts of Sir Philip Hartog and his colleagues and with a simple faith that 50% or 60% or 75% always mean the same, must often draw quite erroneous conclusions about the relative strength and weakness of his boy's or his girl's work in different branches of the curriculum. Again he has probably been given a "general place in class" for his son, and the chances are that these places in class have been arrived at by the simple but invalid method of totalling subject percentages in their raw state, with no equating of median scores and no adjustment of the scatter of marks as between subject and subject.

700. It is, for obvious reasons, important that the records of any school should be in a form that means something to another school or to an outside body and that the report to the parent should enlighten and not mislead. We recommend, therefore, that this whole question of records and reports be the subject of inquiry by a special committee of a future Advisory Council; and, since the aim is not statistical impeccability, however complicated the means of arriving at it, but rather something reasonably valid yet easily workable by busy people in the schools, we suggest that the committee should include experienced headmasters and practising teachers as well as experts on statistical and examination techniques.

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6. Prizes and Prize Givings

701. Sentiment should not perpetuate what reflection has condemned and, even at the risk of seeming priggishly insensitive to old custom, we recommend that the giving of prizes and other competitive awards to individual pupils in secondary schools should be officially discouraged and that education authorities should not make grants for this purpose.

702. Prizes are not an incentive to hard work, save to the handful in any class who need no such spur; and, as every teacher can testify, they lead all too often to an unlovely concentration on marks and class places, and to embittered feelings which may extend beyond the rivals themselves to their parents.

703. Nor can it be argued that the purpose of giving prizes is to reward effort: what we in fact do is to take annual public notice of the superior bookish endowment nature has bestowed on certain boys and girls. If there was a real determination to reward effort, then the schools would pit children not against one another but against themselves, giving prizes not for absolute performance but for improvement on past work, even at modest levels.

704. If we are right in desiring that our schools should be communities of lively minds and generous hearts, of young folk discovering the diversity of natural endowment and the need of each for all, then it is little consonant with such an ideal that their elders should go on singling out for approbation one form of superiority alone and neglecting many another excellence that wears a far lovelier grace.

705. We suggest, then, that if prizes there must be, they should go to encourage the "trier" rather than the easy winner, and that the spirit of competition might attach itself more healthily to the rivalry of houses, classes and other groups, though even there it should not be pushed too far, to the spoiling of good humour and sportsmanship.

706. When the top of the senior secondary school is reached, the objections to prize awards have lost much of their force. By that time young people have become part of a world in which many forms of competitive effort and individual success still bulk large, and both they and their parents are capable of a saner attitude towards school awards.

707. What is overdue here is a change in the form of "dux" prizes. Medals are out of fashion, and we recommend that schools be empowered, even in the award of endowed prizes, to give such books and instruments as will be for the student not useless trophies of past success but the tools and companions of his further studies.

708. We think that prize-giving ceremonies might well be discontinued and that, where prizes are awarded, they should be handed over by the headmaster in the classroom, with a simple word of commendation but without the publicity and false emphasis of the existing practice. It would then be open to the secondary schools to devote their principal public function of the year to something of

greater educational significance and to make it more representative of their own varied life.

7. Home and School

709. From our first reference to it in the Report on Training for Citizenship,* we have consistently advocated increased collaboration of parent and

*Cmd. 6495.

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teacher, and have expressed our conviction that the new ideal of education implies a degree of co-operation between home and school undreamt of in the past. We shall not, therefore, be misunderstood if we suggest the need in this matter to temper enthusiasm with sober sense, lest misdirected zeal defeats its own purpose. Parent-teacher collaboration is free or it is nothing. It cannot be compelled or conjured into being by official fiat, and the approach to it from the school side must be as unforced as from the parents'.

710. There is a clear obligation on headmaster and staff to deal with the individual parent in all friendliness and courtesy within the school; but there is not and cannot be an obligation on them to enter collectively into any relationship with a body of parents. It is hard to say precisely what will ensure the success of such a relationship, but it is very easy indeed to say what will guarantee its failure, namely, the slightest feeling on either side of being pushed against or beyond inclination.

711. We believe that a new generation of teachers, conscious from the beginning of the full sociological import of their task, will see in closer and more varied contact with the home not an unwelcome extension of their sphere of work but an obvious pre-condition of its success. We are equally sure that it is unwise to expect and fatal to demand unlimited adjustment on the part of teachers whose professional ideas and attitudes have long since set. Moreover, we submit that, even were the revolution in attitude complete, there will still be certain limiting factors in the relation of home and school which discussion of this problem is apt to overlook.

712. It is easy to bring parents and teacher together with a *hyphen*, but one does not thereby create an equal or reciprocal relationship. Differences in knowledge and cultural outlook are formidable, and again the intense interest of parent in child may as easily clash as correlate with the diffused interest of teachers in children. But even if these be disregarded, there remains the essential inequality or one-sidedness of the relationship which arises from the rights and responsibilities of the teacher in the practice of his profession. Forgetfulness of this can only lead to false analogies and risky conclusions. For instance, it has been argued that because a parent-leader committee works admirably in the running of scout troops, a parent-teacher committee will be equally effective in promoting the welfare of pupils in a school. It may be so, but it does not follow, and we suggest that it merely darkens counsel to ignore the fundamental differences between voluntary activities and those major functions of

society which like education can be carried out only by persons specially trained and charged by the community with the task.

713. We are whole-hearted in our advocacy of the full partnership of home and school, and convinced that Scottish education must move steadily towards it. But the ideal will be hindered not helped by any premature dogmatism as to the best means of achieving it or by mistaken attempts to hustle either parents or teachers before they are ready.

8. Vocational Guidance and Juvenile Employment

714. We had given some consideration to the important question of vocational guidance, before the Report of the Ince Committee on the Juvenile Employment Service* appeared, and we have reviewed our provisional conclusions in the light of its criticisms and recommendations.

*H.M. Stationery Office, 1945. Price 1s.

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715. Without expressing any opinion on the element of compulsion in the Committee's proposals, we think the general case established that the present provision for vocational guidance and placement is patchy and inadequate; and that the economic position of the country and the increasing preciousness of a diminishing store of youth make the establishment of a comprehensive and efficient service an immediate necessity.

716. We agree with the Committee's twofold contention that a satisfactory scheme can be worked neither by the schools alone nor by any other agency without the full co-operation of the schools.

717. We earnestly hope that all education authorities in Scotland will exercise the option to assume full responsibility for the Juvenile Employment Service in their areas. We urge this for two strong reasons. Firstly, we consider that, while the guidance of youth has a vocational aspect, it remains essential an educational function of the community and should be a specialised activity of the same authority which has the general responsibility for education in the area. Secondly, the schools, and in particular their headmasters, are essential agencies in the operation of the scheme; and we hold that their largely uncharted relations with the juvenile employment officers are the more likely to run smoothly if both parties are servants of the same public authority.

718. We recognise that the machinery devised by the education authorities for carrying out this work will need to take account of widely varying circumstances, and that much will have to be determined or modified in the light of experience. But we are convinced that two factors will everywhere and always be of decisive importance for the success of the Service, namely the quality and status of the juvenile employment officers and the adequacy of the place given to the schools.

719. It matters supremely that the juvenile employment officers should have more than clerical or administrative competence and

occupational knowledge of the district. They should be men and women of high intelligence and wide outlook, with adequate psychological training and an interest in young people which goes beyond the narrowly vocational and is in fact educational. Clearly the conditions of service will have to be very favourable to attract and satisfy men and women of this calibre.

720. The part to be played by the schools is both direct and indirect. It is direct in that it involves the collective interest and pooled knowledge of the staff and the considered judgment of the headmaster in regard to each child. In large secondary schools it will probably involve, too, the semi-specialised activity of one or two teachers who, without usurping the place of either headmaster or colleagues, will be focal points of vocational guidance within the school as the employment officer will be outside it.

721. It is indirect in that the school, and particularly the headmaster, must always remain the link between the parent and the administrative personnel. We think it deeply important that nothing should be done to weaken this function of the school. As school life lengthens, we believe that the kind of influence the good senior secondary school has always exercised in the vocational guidance of its boys and girls will in large measure extend to all schools, and no administrative procedure should ever operate to weaken this most natural co-operation of parent and teacher. We suggest that it will be the best evidence of a healthy attitude in this matter that the pupil's "interview" shall, unless exceptionally, take place in school and with the headmaster presiding.

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722. It follows that, while we look to see the wide and general use of the Juvenile Employment Service in all types of school, we consider that it remains, the unquestioned right of the parent, and of the headmaster as his representative, to deal directly with the responsible employer for the placement of a boy or girl.

9. Clerical Help

723. The provision of clerical assistance in secondary schools, though gradually improving, is still far from adequate over Scotland as a whole. In some areas the arrangements are satisfactory; but in others, quite large secondary schools (including senior secondary schools) have no clerks; in others again, the value of the clerical assistance provided is slight, owing to constant changes and the meagre qualifications of the girls appointed.

724. To have a secondary headmaster devoting time to what could be done by a capable secretary is sheer educational and financial waste. Moreover, the salary of even a competent and experienced clerk is so modest an item within the total cost of running a secondary school that to grudge this provision is inexcusably short-sighted.

725. However obvious these facts may be, their implications are in many areas still largely ignored, and the efficiency of the schools is suffering in consequence.

726. In view of the widely discrepant conditions within an educational system which is in general highly unified, and the slowness with which an unsatisfactory position is being remedied, we recommend that the Secretary of State should take steps to bring all authorities up to a reasonable level in this matter.

10. Radio, Visual and other Mechanical Aids

727. Discussion of the educational significance of broadcasting, the radiogram and the various visual aids tends to oscillate between two extreme views, (1) that collectively these new devices will almost supersede the teacher, and (2) that they are interesting but by no means momentous additions to his resources.

728. If the former opinion merits no serious consideration, the latter reflects only our nearness to these remarkable inventions and our consequent inability to judge their magnitude aright. It may prove nearer the truth that the coming of broadcasting and television was an epoch-making development which the historian of the future will compare with the invention of printing itself for the profound changes it wrought in the techniques of every form and stage of education.

729. The immense potential effects of these new aids, and the extent to which the application of them to the teacher's work is bound up with technical problems of great complexity, justify our decision not to discuss them in this Report but to recommend that the next Advisory Council be given a remit to inquire into this important and complicated subject.

11. Size of Classes and School Accommodation

730. We recommend that the maximum roll for any class in a secondary school be 30 for ordinary class subjects and 20 for all forms of practical instruc-

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tion; and that, in the case of E pupils, these numbers be reduced to 25 and 15 respectively.

731. We put these forward not as optimum figures but as what may reasonably be expected in the generation immediately ahead, in view of the total demands on available teaching power.

732. We have in our Report made many recommendations and suggestions which may engage the attention of the Committee on School Buildings in Scotland. Without attempting here an exhaustive statement of requirements, we think it may be useful if we record our opinion that, in addition to the accepted provision of class-rooms, science laboratories and rooms for, art, music, benchwork, domestic subjects and commercial subjects, a secondary school should have:

- (1) Assembly Hall, with seating, and a properly equipped stage;
- (2) Gymnasium or Gymnasia;
- (3) Playing Field;
- (4) Provision for teaching and practice of swimming;
- (5) Library and Reading Room;

- (6) General Purposes Room, large enough to accommodate two classes, and so equipped that it can be used as (a) a Film Room, and (b) a supplementary Music Room;
- (7) Social Studies Room;
- (8) Mathematical Laboratory;
- (9) Crafts Room (additional to workshops);
- (10) Medical Room;
- (11) Rest Room for Girls;
- (12) Prefects' Room;
- (13) Crush Hall or other accommodation of adequate size to replace existing types of playground shelter;
- (14) Dining Hall;
- (15) Room for the Deputy Head;
- (16) Lady Superintendent's Room;
- (17) Office for the Heads of Departments;
- (18) Room for the Careers Master and for Vocational Guidance;
- (19) Room for the School Secretary or Clerks;
- (20) One or more small study rooms.

SUMMARY OF THE REPORT*

CHAPTER I: HISTORICAL NOTE

733. This chapter notes briefly the salient features in the development of secondary education since 1872.

*We have drawn attention to the recommendations and suggestions in the summary by a line in the margin, and have numbered them for convenience of reference. [In this online version, the numbers are shown in bold in brackets.]

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CHAPTER II: APPROACH TO THE REMIT

734. The approach to the remit has been determined by the Code of 1939 and the Act of 1945, but above all by the complex of feelings and ideas born of the war. (Paragraph 14.)

735. Gratitude for what our people have done, desire to preserve in peace the national unity realised in war and concern to safeguard our way of life and to use our human resources wisely have secured acceptance of the view that secondary education is the right of all Scottish children, and the provision of suitable courses for ordinary boys and girls the main educational task. (Paragraphs 15-21.)

736. Secondary education must build on a reformed primary schooling, must concern itself with every form of provision for boys and girls between 12 and 18, and must look forward to its own consummation in the varied educational activities of adult life. (Paragraphs 22-25.)

737. Secondary education has the task of reconciling national sentiment with world needs, the preservation of traditional values

with the challenge of swiftly-changing conditions, and the necessary social cohesion with the individual diversity native to a Christian and democratic philosophy of life. (Paragraphs 27-29.)

738. To apply to every educational claim the twofold test - (1) what relevance has this to childhood and adolescence, and (2) what significance has this for the citizen of a free but ordered state - is to be involved in a radical reconsideration of the secondary curriculum. (Paragraphs 30-33.)

CHAPTER III: SECONDARY EDUCATION AS IT IS

739. Reforming zeal must not forget the real advances of the past generation and the merits of our existing secondary schools:

- (1) The happier atmosphere in schools and the friendlier relations between teacher and taught:
- (2) The growth of the community ideal and of extra-curricular activities:
- (3) The increased number of well-qualified and well-trained teachers: and the far wider diffusion of first-rate work:
- (4) The big advance in width of curriculum, subject content and teaching methods:
- (5) The sheer quantitative growth of secondary education in Scotland and the much improved provision for average and sub-average children:
- (6) The healthy discontent of the teaching profession and its response to the challenge of a new age. (Paragraphs 34-45.)

740. While asking much, we must beware of asking too much of the day school, since it is but one agency among many. (Paragraph 46.)

CHAPTER IV: THE AIM OF SECONDARY EDUCATION

741. The prevailing view of human nature and of social purpose will determine the aim of education. Accepting generally the values of Christian theism, we put first the full and harmonious development of the individual. But, as human nature is essentially social, the individual has both need of and

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obligation towards the community. Hence the good school must ensure for the adolescent growth in character and understanding through interplay of personalities and must fill the years of youth with security, graciousness and ordered freedom. Security comes from the presence of mature and disinterested personalities manifesting towards the child a consistent and active goodwill. With the sociological changes of half a century, the security once afforded

directly by simpler and more stable societies has been lost: hence the new obligation on the school to provide it. (Paragraphs 47-54.)

742. Ordered freedom is a synthesis of values equally vital to the child and to society. The community life of school provides the raw material (as well as the setting) of social and moral experience; within it the adolescent learns to live with others and gradually to make his own the law which began as something external to him. Of necessity, every society must nurture its young on its own traditions, though a democratic state will leave the maximum area of freedom for the individual and will seek to produce a dynamic rather than a static type. In its legitimate concern with the direction of social change, the state will - (1) inculcate the qualities without which democracy perishes, and (2) teach those basic skills on which its material well-being depends. The latter consideration unites with the needs of adolescence itself to ensure a great extension of practical training. This chapter has a direct bearing on size of classes, use of the specialist teacher, the content and methods of secondary teaching, and both the internal and the external relationships of the secondary school. (Paragraphs 55-68.)

CHAPTER V: THE CONTENT OF SECONDARY EDUCATION

(1) 743. Educational aim determines content; but with the passage of time the original relevance of much in the curriculum is obscured or lost. Ignoring vested interests and asking only what is meaningful to adolescence and vital to society, we conclude that the secondary school must concern itself with:

(1) Care for the bodily health and well-being of the young, which implies more than the provision of games and exercises:

(2) The desire of adolescence to use hand, eye and brain together. We recommend that handicraft have a place in the curriculum of every boy throughout at least the first three years of the secondary course, with corresponding provision of homecraft for all girls:

(3) The need to develop the emotional and aesthetic side of human nature by giving a bigger place to music, dancing and the visual arts:

(4) The systematic and informed teaching of the Bible, as a condition of transmitting our moral and spiritual heritage. (Paragraphs 69-90.)

(2) 744. Within the field of intellectual studies, we give prime place to four claims-(1) Spoken and written English; (2) the rudiments of number and spatial relationships; (3) general science; and (4) social studies. The foregoing we consider the "core" of a secondary education. To the more exacting parts of mathematics and to foreign languages we assign not a lessened importance but a smaller place, for we do not accept the doctrine of "transfer of training" in a form that would tempt us to impose these subjects on pupils of very limited intelligence. (Paragraphs 91-104.)

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CHAPTER VI: METHODS IN THE SECONDARY SCHOOL

745. Despite zealous teaching there is much failure in the secondary school, because methods designed for the few are misapplied to the many. The problem of method is to create the conditions of effective learning by ordinary children. Can this be secured by class instruction within a rigid timetable, a system that keeps children passive, imposes uniform tasks, withholds initiative, ignores the variation in attention-spans, is over-systematised and discourages co-operation? (Paragraphs 105-109.)

746. The educational thinking of the past forty years has undermined the old ways, even if no single new technique of teaching and learning is fully accepted. Scotland has not been in the van of experiment. (Paragraph 110.)

747. The Dalton Plan escapes the rigid timetable and unbroken class-teaching, but it accepts the division of knowledge into "subjects". By contrast, the Activity Curriculum or Project Method shifts the centre of interest to the child, in whose purposeful action true learning takes its rise. The development of reasoning techniques and the working of the mind on experience are fundamental: factual knowledge is got incidentally as needed for the furtherance of the end to which the child is working. This doctrine has been fiercely contested; but, in stressing the worth of systematic training, we must not justify the formal nature of short secondary courses "by smuggling in values to be obtained only by much more prolonged study". Every course must reach its objective within the time available and give adequate place to the phases of wonder and application as well as of precision. We cannot accept the Project Method unreservedly; but we believe enlightened practice must move away from "the barbarous simplicity of class instruction". (Paragraphs 113-127.)

(3) 748. We offer these suggestions:

- (1) A larger place should be given to practical and aesthetic activity.
- (2) Even class-teaching should use centres of interest and carry out limited projects.
- (3) The "subjects" should be presented as fields of human endeavour rather than as bodies of ordered knowledge.
- (4) Pupils should periodically be given some idea of what their programme involves and of the progress made.
- (5) Much that is extra-curricular should come within the curriculum.
- (6) There should be periods when pupils are free to pursue studies of their own choice.
- (7) Realism should be given to school work by visits and excursions. We recommend that the provision in the Code which requires intimation and approval of such departures from normal timetable beforehand be rescinded.
- (8) It is worth sacrifice of tidiness to lessen compartmentation and secure even partial integration.
- (9) Periods should be "socialised" and class co-operation substituted for individual rivalry.
- (10) Favourable conditions for a major experiment involve voluntary transfer of staff and pupils, a free hand for the headmaster and safeguards for the "products" of the experiment. (Paragraphs 128 and 129.)

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(4) 749. We condemn the use of many specialist teachers with young secondary classes, and recommend that in the junior secondary years the usual class subjects be taken by not more than two teachers. The present system aggravates the defects of class-teaching, denies children security when they need it most and orients young teachers towards subjects instead of children. (Paragraphs 130-133.)

(5) 750. Young honours graduates should be used half on their special subjects and half on general work with one class. We recommend that headmasters be given great discretion to use staff as they think wise. (Paragraph 134.)

CHAPTER VII: THE ORGANISATION OF SECONDARY EDUCATION

(6) 751. We explain the familiar set-up of omnibus schools in small centres and junior and senior secondary in large, and indicate three conditions secondary organisation should satisfy. A secondary school should not much exceed 600 pupils, and we cannot recommend huge multilateral schools on the American model. (Paragraphs 135-139.)

752. We find the "tripartite" organisation unsuitable for Scotland, because - (1) It is wholly unrelated to the existing system; (2) grammar, technical and modern types cannot be distinguished at twelve; (3) there is no evidence that the "modern" school will have adequate status; and (4) the concept of school as community condemns the segregation of types at 12, even if it be possible. (Paragraphs 140 and 141.)

(7) 753. Subject to what is said in paragraphs 161 and 180 to 182, we think the omnibus school best embodies the ideals of the new age, and, except where impracticable, we prefer it to any other type of organisation. (Paragraph 143.)

754. The junior secondary school has failed to win esteem because - (1) Our tradition is incorrigibly academic; (2) there is a natural preference for the long-course and selective school as against the short-course and unselective school; (3) the narrow age-range is crippling; (4) academically trained headmasters and teachers reacted unfavourably to the junior secondary school and unconsciously influenced pupil and parent; and (5) many education authorities have not given the junior secondary school equal status and treatment with the senior. (Paragraphs 144-150.)

755. There are formidable objections to the system of senior and junior secondary schools, with selection at 12. Teachers and administrators are becoming more and more conscious of the uncertainty of prognosis at the stage of transfer from primary to secondary education; the verdict once passed is extremely difficult to reverse, and transfers are rare. Many parents, too, have shown resentment at the system, a feeling that has been sharpened by the knowledge that the selection procedure is not applied consistently throughout the social range. (Paragraphs 151-156.)

756. Some junior secondary schools have, however, followed distinctive lines and won public esteem; and the situation may be

improved by - (1) the raising of the age and the awarding of larger bursaries, (2) better economic conditions, and (3) a change of attitude in the younger teachers and among parents also. (Paragraphs 157-159.)

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(8) 757. To strengthen the junior secondary school, we recommend:

(1) That any three-year school which can "grow" a IVth or Vth Year be allowed and encouraged to do so:

(2) That, where this is not possible, everything be done to bridge the gap between the IIIrd Year of the junior secondary and the IVth Year of the senior secondary school:

(3) That the senior secondary school should not in its first three years duplicate such practical courses as more properly belong to a neighbouring junior secondary school:

(4) That the name "junior secondary school" be no longer used. (Paragraph 160.)

(9) 758. We are convinced that the system of junior and senior secondary schools must be given a longer trial under more favourable conditions, wherever an education authority considers that the adoption of the omnibus school is not in the best interests of its area. (Paragraph 161.)

(10) 759. While we are against a binding obligation to complete a five-year course, we recommend more systematic efforts to prevent pupils of promise from leaving school early. (Paragraphs 162 and 163.)

760. The case for the omnibus school is that this is the natural way for a democracy to order post-primary schooling; that it largely escapes the bitter feeling aroused by segregation at 12; that it mitigates the problems of selection and makes easier the transfer of "misfits"; that best of all forms of organisation it provides the raw material of community life; and that it gives every school its leaders in the persons of the older pupils. (Paragraphs 164-169.)

761. The educational objection to the omnibus school is that, owing to the limitation in the knowledge, interests and understanding of headmaster and staff, either the able few or the non-bookish majority will suffer. But the experience of non-selective fee-paying schools casts doubt on this argument, and we think a fuller professional training, adequate on the sociological side, will equip teachers to deal sensibly with all types. (Paragraphs 170-174.)

(11) 762. The formidable problem for the omnibus school is how to avoid both excessive size and excessive cost. To secure the advantages of the "omnibus", we should (despite paragraph 143) concede a roll as high as 800, being convinced that with such numbers the omnibus principle can operate throughout the 12-16 stage. Beyond that, however, some centralisation of pupils or

functional differentiation of schools seem inevitable in large centres to avoid prohibitive cost. This might mean - (1) centralisation of all pupils at 16 - a revolution we do not recommend, (2) allocation of advanced courses among *all* secondary schools in an area, or (3) concentration of VIth Form pupils by transfer in such number of the secondary schools of an area as would give classes of reasonable size. (Paragraphs 175-182.)

(12) 763. We wish to give the curriculum of the secondary school the realism and practical interest that have produced the keen work of the pre-apprenticeship classes; and we trust that such full-time courses, end-on to the secondary school, will be continued as an alternative to attendance at the junior colleges. (Paragraphs 183 and 184.)

(13) 764. We advise against a "common course" throughout the Ist Year as bound to involve the sacrifice either of the few to the many or of the many to the few. (Paragraphs 185-190.)

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CHAPTER VIII: EXAMINATIONS AND CERTIFICATES

765. The teacher's own tests are innocuous, but we find the case proved against the external examination. It involves defined syllabuses and uniformity of treatment, and thus dominates the curriculum. Useful during a period of rapid expansion, it cramps a secondary system that has reached full stature. It exalts memory, depresses the non-examinable and becomes an end in itself, so that even where it spurs to harder work, it destroys the finer educational values. (Paragraphs 191-198.)

(14) 766. But an alternative to the external examination must merit the confidence of the business and professional world by ensuring that any national certificate will represent the same standard of work everywhere. To the question whether the schools' own estimates would be thus reliable, the answer is "Yes" in regard to order of merit, but "No" in respect of standard and spread of marks. We show in Diagrams A and B how serious these two variables would be, and consider proposed methods of securing a uniform standard. Neither an allocation of marks based on the normal distribution curve nor the steadying effect of cumulative records and the guidance of standardised test results is satisfactory; the final verdict cannot be left to the individual teacher or inspector. (Paragraphs 199-210.)

767. There remains only one other way; to accept the teacher's order of merit as final, but by exact statistical methods to standardise the schools' estimates in respect of severity and spread of marks. Diagram C illustrates the scaling procedure. Though involving a uniform external test in each subject this procedure is free from the worst evils of the present system because:

- (1) The external test is for scaling only and does not settle the fate of the individual;
- (2) It can be very short and yet serve its purpose;
- (3) Being on "minimum essentials" it need not cramp the teacher's freedom;
- (4) As such tests use mainly short-answer questions,

correction is easy and free from subjective unreliability.
(Paragraphs 211-217.)

(15) 768. We recommend that the pass mark be fixed by the technical method described in paragraph 219.

769. We deal with objections to the standardising procedure; the difficulties where numbers are too small for exact statistical treatment; the continuing temptation to cram for the tests; the danger of the teacher's concentrating on the examinable. (Paragraphs 220-223.)

770. We conclude that the system deserves a fair trial, and, in case we seem to be proposing a new and fallible procedure for an almost perfect one, we quote from "An Examination of Examinations" as a reminder of the alarming unreliability in the verdicts of the external examiner. (Paragraphs 224-226.)

771. We have had in mind so far the general body of secondary pupils. For obvious reasons, the external examination bears less hardly on the minority proceeding to higher studies, though an American experiment suggests a doubt whether it is the best means of selection for university work. (Paragraphs 227 and 228.)

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772. Before proposing radical changes in the system of examinations and certificates, we pay tribute to the skill and enlightenment with which the Scottish Education Department has conducted the Leaving Certificate over more than half-a-century. (Paragraphs 229-231.)

(16) 773. Our major recommendations are these:-

(1) That there be no external examination for boys and girls leaving school at fifteen, but that each pupil leaving at fifteen or without securing the School Certificate referred to below be supplied with a record giving particulars of his work in the secondary school.

(2) That a School Certificate be instituted, to be taken at the end of the IVth Year; that this Certificate be awarded on the results of internal examination conducted by the teachers in each school and a process of standardisation carried out by the Scottish Education Department; and that the Certificate be not awarded on a group basis, but show the subjects included in the course and those in which a pass has been obtained.

(3) That a Higher School Certificate, also on a subject basis, be instituted, to mark the completion of various types of VIth Form course.

(4) That the external examination for the Higher School Certificate be conducted by the Scottish Education Department.

(5) That on the institution of the School Certificate and the Higher School Certificate, the award of the Senior Leaving Certificate be discontinued. (Paragraph 232.)

(17) 774. A national assessment of all children leaving at fifteen would be undesirable, as tending to stereotype the work of short

courses, and needless, since such children are locally employed and require only a well-framed record of work. We recommend that the best form of record or report should be the subject of consultation between the Secretary of State, the education authorities and representatives of commerce and industry. (Paragraphs 233 and 234.)

775. Our reasons for favouring a School Certificate at sixteen are these:

- (1) Sixteen is the age at which general education is thought to end and is, therefore, the natural point at which to set a first certificate.
- (2) Only so is there adequate space (i.e. two years) for VIth Form work.
- (3) It will encourage the short-course schools, and link schooling directly with apprenticeship.
- (4) Sixteen is the best age for beginning a wide range of clerical, commercial and semi-professional work.
- (5) As professional and Civil Service requirements reflect English conditions, our present set-up imposes hardship and inconvenience on Scottish pupils. (Paragraphs 235-240.)

(18) 776. The standard of the School Certificate should take account of present-day ways of life and adult working-hours. (Paragraph 241.)

(19) 777. We give reasons for preferring a "subject" to a "group" certificate. We further recommend that in the School Certificate there be passes on one grade only; and that the award should be by a simple pass with no credits or other grades of distinction. (Paragraphs 242-245.)

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(20) 778. The freedom and variety we wish to see in VIth Form studies demand great flexibility in the Higher School Certificate regulations, and we recommend that:

- (1) There be a subsidiary and a principal grade:
- (2) Weight be given to the school's estimates:
- (3) The Certificate be awarded on a "subjects" basis:
- (4) A candidate be free to offer such number and grouping of subjects as he wishes. (Paragraphs 246 and 247.)

(21) 779. We give reasons why the control of both Certificates should rest with the Scottish Education Department; and, to improve the machinery of consultation, we recommend - (1) that the Secretary of State set up an Advisory Examination Council, and (2) that the Department nominate for each subject a panel of practising teachers. (Paragraphs 248-252.)

780. Even if it should mean a special examination for university entrants, we rejoice that the new School Certificate cannot be directly related to university entrance. It may be, however, that the universities will see in a pupil's performance in the School Certificate

and Higher School Certificate respectively evidence of the general and special qualifications required for the degree course in question. (Paragraphs 253-255.)

781. We rebut the objections that our proposals will result in (a) a much-diminished roll in the Vth Year, and (b) such excessive specialisation as certain English schools have practised. (Paragraph 256.)

CHAPTER IX: THE CURRICULUM

Introductory

782. This Chapter should be taken closely with the Report on Primary Education, since the process is continuous and much that was said there is equally relevant here. We have tried to formulate for the 12-16 stage a curriculum broadly uniform in content and purpose: where particular categories of children need special treatment, we designate them in terms of the rating scale divided into five equal intervals of ability. The VIth Form, though very important, is treated briefly, since that is not the stage at which radical reform is urgent. (Paragraphs 258-268.)

English

(22) 783. To secure a good national standard in the understanding and use of English is a supreme objective, but the volume of complaint shows that it has not been reached. Continued failure here may face the general body of secondary teachers with the choice of admitting some responsibility for the standard of English or of seeing their own specialist work limited or postponed to allow of intensified attack on semi-literacy by the English teachers proper. We recommend inquiry and, if possible, an actual test of the effects of very greatly increased time to direct English teaching in the earlier years of the secondary course. (Paragraphs 269-278.)

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(23) 784. There is need for far greater attention to the spoken word, and teachers require thorough phonetic training. The schools' concern is with standard English: dialect is to be respected, debased speech to be fought. Imitation will effect more than analysis, and the "socialised recitation" than oral composition". Training in careful listening is important, and there is educational value in intelligent reading aloud at sight. (Paragraphs 280-287.)

(24) 785. Written composition can move further still towards the homely and practical, with fuller use of the letter form; and where it goes beyond "communication" writing, story, dialogue and play are more suitable than the essay. We emphasise the danger of impatient haste to secure results and of over-stressing the merits of the short sentence. (Paragraphs 288-295.)

(25) 786. We define the place of spelling, stress the importance of punctuation and advise fuller training in the structure of writing and in logical expression rather than in grammar proper, regarding which we recommend that systematic practice in parsing and analysis should

not be required in any School Certificate syllabus. (Paragraphs 296-301.)

(26) 787. No form of rapid reading is a substitute for close study of selected texts, and pupils must develop a "conscience in reading". For intensive work selections are better than complete texts; and close study and training in comprehension should take more account than at present of pupils whose intellectual interests are mainly on scientific lines. (Paragraphs 302-304.)

(27) 788. The general reading of secondary pupils should give the main place to prose and not poetry, to modern rather than earlier writings, to content as against form, and therefore to the direct writers rather than the indirect. In regard to wide, recreational reading, the wise teacher will not sour pupils with a too strict canon. For younger secondary classes, we attach much importance to - (1) class libraries and (2) simple training in the use of reference books. (Paragraphs 305-308.)

(28) 789. We plead for special attention to the English training of the D and E pupils, whose inner resources are small and whose occupation is likely to be routine-bound. Such work will tax the skill of the best teacher, but it is splendidly worthwhile, in so far as it brings even a slight quickening of mind or of cultural interest. (Paragraphs 309-314.)

790. The teaching of imaginative literature is a thing apart. No man gives youth a vision of excellence unless he habitually lives with it. Great literature is the storehouse of human experience, and it is the English teacher's privilege to show a new generation where to find wisdom and vision. (Paragraphs 315-318.)

(29) 791. Paragraphs 319-321 praise the school play as the epitome of enlightened education.

Handwriting

(30) 792. These paragraphs are merely a pendant to the relevant section of the Report on Primary Education, but we urge secondary schools to try the effect of *concerted* staff displeasure over and rejection of bad writing. (Paragraphs 322-325.)

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Social Studies

793. History and geography cannot be taught systematically to young secondary pupils on two periods a week each. The remedy is not, however, to double the time but to be content at that stage with a simple treatment of social studies, designed to satisfy curiosity, quicken interest, foster desirable mental attitudes and give the child a sense of belonging to place and community. (Paragraphs 326-328.)

(31) 794. To secure integration and width of content it is essential that the course should during the first three years at least be taken by one person, preferably the English teacher of the class. (Paragraph 329.)

(32) 795. Within the same broad intention, courses should vary enough to do justice to the great range of interests and intelligence and to give the work a local cast. It needs much pioneer work to discover how young adolescents grow in social consciousness and what fosters that growth. (Paragraphs 330-333.)

(33) 796. As social awareness comes to the child only from the impact of a community small enough to be comprehended, social study must start with the immediate neighbourhood and take the form of local survey, including elements of geography, history, civics and economics. The unifying idea may be the "work" of the community. (Paragraphs 335-340.)

(34) 797. Geographical study is an expansion of such survey, with wider areas and increased scale but the same guiding ideas. The unity of the course should be concrete and topical rather than logical, and it should satisfy the child's keen interest in other lands and peoples. (Paragraphs 341-344.)

(35) 798. We strongly recommend much use of visual aids and of properly-planned visits to museums, the provision of more and better globes, and also of those vivid first-hand books that give the inspiration ordinary text-books lack. (Paragraphs 345 and 346.)

799. Below the VIth Form, geography is primarily a human, not a scientific, study: to ignore this is to kill the subject for young secondary pupils. (Paragraphs 347 and 348.)

(36) 800. We recommend the provision in the secondary school of a social studies room, equipped with visual aids, having ample storage room and designed for individual and group work. (Paragraph. 349.)

(37) 801. We quote Professor H. Butterfield on the dismal effect on the young of "ordinary curriculum history", accept his distinction between "learning history" (impossible at twelve) and "learning to see everything historically", and advise a topical and biographical treatment of the human past during the early years of secondary schooling. It centres attention on what is common to all ages and lands; leads to pupil activity and to visits and excursions; avoids what needs for its understanding a time-sense and a grasp of causality; and builds on the child's interest in the human adventure. (Paragraphs: 351-359.)

(38) 802. We stress the urgency and the difficulty of teaching recent history, the right and the wrong approach to local history and the degree to which a more logical and systematic course is desirable for very able pupils between 12 and 16. (Paragraphs 361-363.)

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(39) 803. In the VIth Form, geography and history become real subjects, combining the discipline of a science with a rich humanistic appeal: they merit ample time. The primary aim should be not the amassing of facts but the training of critical judgement. We recommend that VIth Form pupils not taking full courses in history or geography should give at least two periods weekly to the continued study of social science. (Paragraphs 364-367).

Classics

(40) 804. We admit the unique value of the classical inheritance and the need for life-giving contact with the springs of our civilisation. We wish, therefore, to see a proportion of our best minds turning to classics, nor should a boy or girl lack opportunity to do so in any corner of our land. We agree that classics not Latin alone should be the basis of recognition as a specialist teacher; and we recommend that every secondary school offering courses of four years or more should have a classical honours graduate on its staff. (Paragraphs 368 and 369.)

(41) 805. The decline of Greek cannot be cured by compulsion, but no able pupil must be denied Greek, nor should adequate teaching time be grudged even to one or two pupils. The real problem is how to justify the widespread teaching of Latin, i.e. the giving to an ancient language of about a fifth of all the time available for bookish studies. Neither supposed training value nor merely incidental benefits will support the claim; only evidence that the time cannot be better spent and that good ordinary pupils can with a daily lesson for four years acquire some ability to read Latin and some understanding of the classical world. Such a test condemns the existing four-and five-year courses, with their heavy expenditure of time on syntax and composition, their almost complete neglect of ancient life and history and the boredom they engender. Reform is urgent and we suggest:

(1) That Latin be confined to the best third (I.Q. 108 and over), and that courses be planned for a minimum of four years:

(2) That from IInd Year onward the twofold aim should be to give maximum ability to understand Latin and to present a connected account of Greek and Roman history:

(3) That the large and largely unprofitable expenditure of time on composition be drastically cut down, and specifically we recommend that ability to turn into Latin the familiar array of simple and complex sentences be no longer required at School Certificate stage:

(4) That teachers search the whole field of Latin writing for reading material, disregarding the classical canon and the requirements of composition:

(5) That there be regular teaching of Greek and Roman history as a unity, and discussion of classical topics in class:

(6) That the limited reading in the original be supplemented by wide and wisely directed study of the classics in English. (Paragraphs 370-396.)

(42) 806. We think these proposals give the classical teacher a more important function and might create an interest in classics which would outlast school-days. They give new point to the prior claim of Greek, and we recommend that, where staffing allows, it should be possible to take Greek as first or sole classical language. (Paragraphs 397-400.)

(43) 807. For the minority who will carry classics to the VIth Form stage, the traditional curriculum needs less changing, but we recommend that at the Higher School Certificate - (1) the demands in composition should be very moderately pitched, and (2) general questions in ancient history and civilisation be included, with a substantial allocation of marks. (Paragraphs 401 and 402.)

Modern Languages

808. Accepting the view that a foreign language is a valuable but not a necessary part of a secondary education, and that a language is commended by the worth of its literature, its ease of acquisition and its utility, we ask - (1) what languages should be taught and with what aim, (2) how should they be taught and (3) to what proportion of pupils can they be taught. (Paragraphs 403 and 404.)

(44) 809. We find the virtual monopoly of French regrettable, since it so narrowly limits our understanding of other European cultures, and unwarranted, since anyone of the major languages amply repays study. Moreover, Italian and Spanish are easier for the learner, Russian and Spanish of greater utility. The need is for a wider diffusion of language teaching, ensuring that over the country as a whole each of the main European languages would be known to many and that each culture would thus have sympathetic interpreters. French would still have an assured place, but the value of German for science would be recognised while Spanish might increasingly be the choice where language study was to be neither profound nor prolonged. (Paragraphs 405-414.)

(45) 810. A language should be studied for the ability to read it and to speak it simply, but classical influence has led to a cult of formal composition, premature study of grammar and a misuse of translation into English. To a child of twelve a language is something to speak, and his learning of it must start with aural comprehension, accompanied by oral practice and leading on to a varied reading for comprehension and to study of the life and customs of the people. Taught thus, the pupil would in time want to write French or Spanish, and would do so well, within the limits of his vocabulary and range of ideas. (Paragraphs 415-426.)

(46) 811. We suggest what a reasonable assessment of such a reformed syllabus would be like, and recommend that neither set composition nor elaborate sentences should be a compulsory part of any School Certificate syllabus. (Paragraph 427.)

(47) 812. Only able teachers should take beginners' classes, which, whenever possible, should be treated as "practical classes" and the numbers limited to about twenty. (Paragraph 428.)

(48) 813. We recommend the more generous provision by education authorities of wireless sets and gramophone records, together with maps, pictures and other material illustrative of the history and culture of the countries studied. (Paragraph 429.)

(49) 814. Our witnesses did not think more pupils might profitably study a foreign language, but we recommend that headmasters be left free to try simple Spanish or French with the better C pupils who wish a language. (Paragraph 430.)

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(50) 815. Only pupils of marked ability should undertake two foreign languages in the years from 12 to 16. Where possible, the second might be started half a session after the first. (Paragraphs 431 and 432.)

(51) 816. We deal with languages in the VIth Form, stress the urgent importance of the study of Russian at this stage and recommend that education authorities make it possible for linguistically able pupils to crown their work with a term's residence abroad under defined conditions. (Paragraphs 433- 436.)

(52) 817. Our recommendations about Gaelic are:

- (1) That Gaelic-speaking pupils should give the systematic study of that language priority to any foreign tongue:
- (2) That every secondary school in a Gaelic-speaking area should have on its staff a fully qualified teacher of that language:
- (3) That in large centres with considerable population of Celtic origin, one school at least should provide facilities for the study of Gaelic.

We cannot, however, agree that Gaelic should have complete parity with other European languages in all the secondary schools of Scotland. (Paragraphs 437-440.)

Mathematics

818. There is agreement that school Mathematics in Scotland needs an overhaul, being too formal, divorced from practice and excessively concerned with inner consistency and logical sequence. (Paragraphs 441-444.)

(53) 819. We commend the very simple courses being designed for D, E and the weak C pupils. (Paragraphs 445-450.)

(54) 820. We make the following observations and recommendations with regard to the provision for the other pupils:

- (1) The place given to formal geometry is absurd. We recommend (a) that in three-year courses no formal geometrical proofs be demanded and (b) that in School Certificate courses the number of such proofs required should not exceed twenty-five.
- (2) We recommend that manipulative work in algebra and trigonometry be much simplified and reduced to a third of its present amount.
- (3) We deplore the practice of treating Mathematics as so many separate branches.
- (4) Time saved in formal geometry should go to mensuration and technical drawing, to give working knowledge of spatial relations and ability to see and think in three dimensions. We recommend that solid geometry

be taught through the drawing board, the making and handling of solid models, and the relevant parts of trigonometry.

(5) The treatment of factors and equations should be simpler, and the time saved given to fuller practice in the handling of formulae.

(6) We recommend the introduction of logarithms, the use of the slide-rule and the elements of trigonometry in the IIIrd Year.

(7) There should be much more stress on graphical work, leading on to functionality and to the beginnings of calculus and analytical geometry.

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(54 continued)

(8) We attribute much lack of interest to the exclusion of Applied Mathematics, and recommend that appropriate parts of elementary mechanics find a place in School Certificate courses in Mathematics.

(9) In paragraphs 458-460, we consider the need for and the equipment of a practical room for mathematics; and we recommend that every sizable secondary school be provided with one or more mathematical laboratories according to its numbers.

(10) To meet the concern of certain witnesses for the interests of the few, we recommend that after the IIInd Year there should be a more theoretical and logically vigorous treatment of Mathematics for pupils of marked ability, and that there might meantime be alternative syllabuses at School Certificate stage. (Paragraphs 451-476.)

(55) 821. We invite attention to the problem of special mathematical courses for girls. (Paragraphs 477 and 478.)

Science

(56) 822. In paragraph 94 we recommend that no pupil be allowed to curtail the time allotted to science before the completion of the IIIrd Year, or to discontinue its study before the end of the IVth. We give science this place not primarily for its technological importance, or its training value, but because it is the dominant and distinctive element in contemporary European culture.

(57) This attitude justifies our recommendation in paragraph 95 that for the first four years the treatment of science should be wide and unspecialised, i.e. that "General Science" and it alone be taught. We support this with expert evidence. (Paragraphs 479-484.)

(58) 823. While physics and chemistry must bulk large in a General Science course, the quantitative aspects of both have been greatly

over-stressed, and much that involves accurate weighing and measuring, elaborate calculation and the use of delicate instruments should be simplified or postponed. (Paragraphs 486 and 487.)

(59) 824. Biology, neglected hitherto, merits parity with physics and chemistry in all courses-e-and some pre-eminence in those for girls and for pupils in rural areas. Within biology, more place should be given to zoology as being of greater interest and as leading directly to simple teaching of physiology and hygiene. (Paragraphs 488-490.)

(60) 825. Astronomy and geology have a good claim to be included. (Paragraphs 491-495.)

826. Of the three "aspects" referred to in para. 123, "system" has been overstressed in science teaching, while "wonder" and "utility" have been neglected. There is weighty evidence in favour of sacrificing something of system, to let the work start from the human environment and keep close to the pupils' "centres of interest." (Paragraphs 496-501.)

(61) 827. We note the need for completeness in every science course; the exclusion of what has training value only; the stress to be laid on science as human achievement; the need for a science library; the value of visits which show science in action; the indispensability of visual aids; the place of garden and aquarium in the teaching of biology; the futility of over-much note-taking; and the rightful place of talk and demonstration as well as experiment. We recommend that throughout School Certificate stage, one person should teach all the science of a class in any year. (Paragraph 502.)

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(62) 828. VIth Form science must include both continued General Science and systematic courses in separate branches. We recommend that VIth Form pupils who drop the full study of science should take a limited course, not on experimental lines but comprising lecture-talks and discussion of fundamental scientific ideas. (Paragraph 503.)

Domestic Subjects

(63) 829. The household arts will not have their due place in secondary education until every girl has minimum regular training in them over at least three years, as we recommend in paragraph 83, and (2) far more girls take a full course in them. (Paragraphs 504-507.)

(64) 830. The minimum course should be wide and unspecialised, with cookery, needlework and laundry as its main constituents, and it is enough if the essentials are well done. There should be some reference to personal and household hygiene, some discussion of domestic expenditure and a little instruction in the care of babies. We recommend that this last be given by the health visitor or trained nurse. (Paragraphs 508-511.)

(65) 831. The intellectual element in practical training must not be lost. Courses might show more individuality: they should take account of life as the children will live it. (Paragraphs 512 and 513.)

(66) 832. Basic training in the domestic arts should be crowned by a short period of residence, and we recommend that high priority be given to the provision of housewifery centres. (Paragraph 514.)

(67) 833. Within the School Certificate syllabus, the one-language course with Domestic Subjects should be second to none in esteem. (Paragraphs 515 and 07)

834. VIth Form work in Domestic Subjects is defined. (Paragraphs 517-519.)

(68) 835. Finally, we recommend that in all Certificate Courses of a practical kind, like Domestic Subjects, the Department should no longer insist on the time candidates must spend as distinct from the standard they must reach. (Paragraph 520.)

Education for Commerce

(69) 836. The essential requirements for a career in business are plain English, facility in calculation, general knowledge and alertness of mind. But custom and the need to enlist the vocational motive compel the provision of some specifically commercial training from 12 to 16, and we recommend:

- (1) That in Ist and IInd Years not more than four periods be given, mainly to simple book-keeping and short-method calculation:
- (2) That shorthand and typewriting be excluded by regulation from the first two years of the secondary course:
- (3) That shorthand be taken intensively in the IIIrd Year:
- (4) That there be inquiry into the possibility of devising a simpler system of "brief writing" designed to give moderate speeds only:
- (5) That there be no more than a beginning of typewriting in the IIIrd Year:
- (6) That after a three-year commercial course, girls be encouraged to take a IVth Year intensive course in their own schools. (Paragraphs 521-255.)

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837. We consider the place of commercial training in VIth Form, stress the importance of economic studies, and express the hope that firms will make it worth while to stay at school to 17 or 18. (Paragraphs 526-529.)

Music, Art and Crafts

838. The position of Music and the visual arts has improved and good work is done, but they still lack due recognition. (Paragraphs 530-532.)

(70) 839. We stress the need to preserve balance within the threefold function of Art and Music teaching, suggest time allocations, provide for full School Certificate courses and refer to certain defects in the existing training of Art and Music teachers. (Paragraphs 533-538.)

(71) 840. The main element in school music is good class-singing, the foundation of which must be laid in the primary school. Suitable accommodation and equipment are essential, and we recommend for every secondary school a special music-room or rooms, of good size, sound-proof and away from external noises. (Paragraphs 539 and 540.)

(72) 841. Class-singing, based primarily on Scottish folk songs, should be joyous and not over refined. We find no justification for discontinuing the singing of adolescent boys. Pupils should be encouraged to write melodies and to "make their own music" on instruments like the recorder. Every school should have its choir and orchestra, and education authorities have an obligation to provide instruments. (Paragraphs 541-545.)

(73) 842. We draw attention to the proved effectiveness of group instruction on the violin. (Paragraph 546.)

(74) 843. We deal with the importance of education in the appreciation of Music. (Paragraph 547.)

(75) 844. We do not consider in detail the Music syllabus for the School Certificate, but we recommend that the present practice by which the instrumental work for the Senior Leaving Certificate can be done with an outside teacher be disallowed. (Paragraph 548.)

(76) 845. The major aim of Art teaching is appreciation. Firm instruction in line and colour there must be for the sake of ultimate appreciation, but it is unwise to linger too long on drawing and painting, to the neglect of design and crafts, which are doubly important - for the improvement of taste and because the application of art to industry is now an economic urgency. (Paragraphs 549-551.)

(77) 846. We note the need for a wider range of crafts, allowing for the divergent interests of boys and girls, and also for better art accommodation and equipment. We stress, too, the value of a school art gallery, the need for guidance in visits to outside galleries and the linkage of art teaching with every side of school life. (Paragraph 552.)

847. VIth Form work in Art and Music is referred to. (Paragraph 553.)

(78) 848. We cannot support a compulsion to take Art throughout the VIth Form. (Paragraph 554.)

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Physical Education

(79) 849. These brief notes, to be taken along with the fuller section in the Report on Primary Education, make some modest suggestions and contain these three recommendations:

- (1) That, in spite of the admitted difficulties, schools be asked to make the daily period of physical exercise a reality:
- (2) That the Department disallow the teaching of secondary school boys by a physical training instructress:

(3) That there be immediate inquiry into the range of team games suitable for children and adolescents, and into the extent of ground they require. (Paragraphs 555-559.)

Religious Instruction

(80) 850. Religious Instruction is a necessary part of religious education, since Christian feeling and action must ultimately rest on such knowledge of the Bible as has long been provided for in Scottish schools. We reaffirm our recommendation in the Report on Training for Citizenship that in every secondary school two periods weekly be allocated to Religious Instruction at all stages, and advise that these periods be safeguarded by regulations of the education authorities. (Paragraphs 560-562.)

(81) 851. It is not now difficult to avoid entrusting Religious Instruction to teachers who lack personal conviction, but it remains to secure adequate biblical scholarship. The Old and New Testaments will be the basis of study in the earlier secondary years; in the later, increasing attention should be given to general questions in religion and ethics. For the teaching of pupils aged 12-16, a year's course in biblical studies on M.A. standard would suffice; for the VIth Form we recommend a specialist qualification. (Paragraphs 563-569.)

(82) 852. Where it is necessary that the teacher appointed should take Religious Instruction, that should be indicated in the advertisement of the vacancy. To safeguard the integrity and professional freedom of the teacher, we recommend that headmasters be left free to assign Religious Instruction to such of their colleagues as are willing and able to take it; and that neither on forms of application nor at interview should any candidate for a secondary school post (other than that of scripture specialist) be asked whether he is willing to undertake such teaching. (Paragraphs 570 and 571.)

(83) 853. We recommend that education authorities provide maps, reference books, commentaries and other aids to scripture teaching. (Paragraph 572.)

Timetables

854. We give our reasons for venturing to frame timetables, consider possible criticisms of our allocations of time and explain certain points of detail in the specimen timetables set out. (Paragraphs 573-581.)

CHAPTER X: TECHNICAL EDUCATION IN THE SECONDARY SCHOOL

(84) 855. Of high educational value in themselves, Technical Subjects are commended also by the needs of our country. We favour not the institution of separate technical schools, but a great extension of technical education in the secondary school. (Paragraphs 582-584.)

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(85) 856. To enable Technical Subjects to have the place they merit, four things are necessary:

(1) As we have recommended, all boys must have a minimum of regular technical instruction throughout the first three years of a secondary course.

(2) For the full technical courses, both the time allowances and the provision of equipment must be adequate. We give our recommendations on these two points.

(3) The senior secondary school must give full status and a fair share of the ablest boys to the technical course with a language. We suggest, for the encouragement of technical education, less rigidity in university entrance requirements, and more attractive provision by engineering firms for older and more highly qualified boys.

(4) A realistic treatment of the other subjects of the course, along the lines we advocate in Chapter IX, is necessary. (Paragraphs 585-595.)

(86) 857. The weaker boys need a general course, rich in craftwork, rather than technical training in the strict sense. (Paragraphs 597-599.)

(87) 858. We recommend - (1) provision for the girl who wishes to take the technical training available for boys rather than the corresponding domestic course, and (2) inquiry whether new types of technical training more suitable for girls could be evolved. (Paragraphs 600-602.)

(88) 859. VIth Form work in Technical Subjects for Higher School Certificate should not be too much specialised nor should it carry theory too far beyond practice. We suggest what the course should comprise. (Paragraphs 603- 612.)

CHAPTER XI: SECONDARY EDUCATION IN RURAL AND HIGHLAND SCOTLAND

(89) 860. Rural secondary education must neither tie country-bred bairns to the soil, nor on the other hand ignore the principle of relatedness to the child's environment. This implies "rural colour" but not "agricultural bias"; and, in accord with our witnesses, we recommend that agriculture as such have no place in the secondary curriculum within the years of compulsory schooling.

(90) We discuss how rural colour may be given to the curriculum, but stress how much depends on the training and attitude of the country teacher, and recommend that education authorities should regard as a matter of urgency the provision for their teachers of living accommodation within easy distance of the school. (Paragraphs 613-624.)

(91) 861. Rural senior secondary schools are satisfactory on the side of bookish studies and pure science, but art, music and domestic subjects have too limited a place, while the provision for advanced technical education, whether agricultural or mechanical, is meagre and over large areas almost non-existent. To remedy this we recommend:

(1) That education authorities should singly or jointly set up for appropriate areas or regions senior secondary

schools of a technical type, with hostels, to provide (a) a variety of practical courses, but not general or academic courses, leading to School and Higher School Certificate presentation, and (b) intensive IVth Year courses of corresponding types:

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(2) That science courses in country and highland secondary schools be given a biological and rural bias and that there be in these schools a wide extension of School and Higher School Certificate courses in agricultural subjects, as defined by the Department:

(3) That the Secretary of State should make known to the Scottish Universities the hampering effect of existing entrance regulations on desirable developments in rural secondary education, and should urge that the regulations be amended. (Paragraphs 626-636.)

862. The position of junior rural secondary education is far from satisfactory owing to - (1) failure to develop adequately such practical courses as would meet the educational needs of the pupils and the conditions of country life, and (2) the continued existence of tiny, ill-equipped centres, giving a semblance but no reality of secondary education. It may prove impossible to cure (1) by anything less drastic than such centralisation of all academic pupils from age 12 as will force the short-course schools to turn to their proper work. The causes of (2) are limited finances, parental unwillingness to let children leave home and the facts of geography. (Paragraphs 637-640.)

(92) 863. To ensure real secondary education for all country children, as the Act of 1945 requires, and to do it with the minimum centralisation and upset to small or remote communities, we recommend:

(1) That no school be recognised as meeting the requirements of the Code in respect of secondary education unless it is either a combined primary and secondary unit with a staff of at least five full-time teachers, plus visiting specialists, or a purely secondary school with staff equivalent to at least four full-time teachers:

(2) That every such school have two all-purposes practical rooms for boys and girls respectively, with equipment considerably more varied and extensive than has been general hitherto:

(3) That, due allowance made for immediate difficulties, this necessary centralisation be enforced with no avoidable delay:

(4) That, where pupils travel, the distance by cycle be not more than four or where the going is exceptionally easy five miles, and by bus one hour's journey including walking time:

(5) That the work of rural secondary schools be strengthened by more generous provision of (a) either semi-specialists or fully qualified teachers of music and

physical education, and (b) pianos, gramophones, wireless sets, projectors and other visual aids. (Paragraphs 641-647.)

(93) 864. Finally, we suggest that, after a period in which the education authorities have been given freedom to experiment, it be remitted to a future Advisory Council to review the effects of our recommendations and the progress made. (Paragraphs 648-650.)

CHAPTER XII: THE INSPECTORATE

(94) 865. This chapter records our sense of the significant part the Inspectorate has played and our conviction that the value of its services will not diminish. We note the diversity of functions performed by H.M. Inspectors, their good relations with the schools, the difficulty of ensuring that young inspectors shall have first-hand knowledge of primary and infant teaching, and the tendency to overwork the members of the service. Our recommendations for the improvement of the Inspectorate are these:

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(1) The Inspectorate should be re-named H.M. Educational Service, the members to be known as H.M. Education Officers.

(2) Hurried routine inspection followed by stereotyped reports is a time-wasting and unprofitable practice which should be discontinued, Inspectors being left free to examine with thoroughness and report with candour where necessary, and, for the rest, to devote their time to more constructive functions.

(3) On selection for appointment to the Inspectorate men and women should spend a suitable period under the guidance of an Institute of Education, to gain first-hand experience of infant and primary teaching and to enlarge their knowledge of psychology and of modern educational techniques.

(4) Adequate secretarial assistance should be provided for Chief and District Inspectors.

(5) There should be a substantial increase in the numbers of the Inspectorate. (Paragraphs 651-666.)

CHAPTER XIII: MISCELLANEA

A Problem of Transfer

(95) 866. There is a difficulty in providing for pupils who finish primary schooling in January and cannot begin a senior secondary course till August or September. We recommend that such pupils be transferred to the senior secondary school as soon as they finish the primary stage. (Paragraphs 668-672.)

Homework

(96) 867. We think the present school day allows of moderate and wisely regulated homework at the secondary stage; and we recommend that it be given up to five hours weekly in Ist and IInd Years, to 7½ hours in IIIrd Year, and to nine or ten hours in School Certificate Year. (Paragraphs 673-676.)

868. We make a number of suggestions to prevent abuses. (Paragraphs 677-686.)

School Libraries

(97) 869. The present state of school libraries is not creditable to Scotland, and we recommend as follows:

- (1) The library of a secondary school should be housed in a room big enough to take the book-stacks comfortably and to provide reading accommodation for a normal class.
- (2) There should be a recognised librarian, and the member of staff appointed should have at least a period daily for the work.
- (3) The librarian should have the support of a committee consisting of the headmaster, teachers from different departments and pupils.
- (4) The younger secondary classes at least should have a "library period".
- (5) The range of books should be wide enough to be both recreational and instructional, and the provision should include good periodicals and a considerable variety of reference books.
- (6). Even a small secondary school should have at least a thousand well-selected books, while large secondary schools would house collections many times bigger.

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- (7) Education authorities should make annual library grants to secondary schools, ranging from £40 to £160. (Paragraphs 688-697.)

Vith Form Rooms

(98) 870. We recommend that in the building or reconstruction of a senior secondary school provision should always be made for one or more small study rooms for the use of advanced pupils. (Paragraph 698.)

Marks and Terminal Reports

(99) 871. We draw attention to the unsatisfactory form of school reports and the neglect of elementary statistical principles in the compilation of marks. We recommend inquiry by a committee of a future Advisory Council containing practising teachers and headmasters as well as statistical experts. (Paragraphs 699 and 700.)

Prizes and Prize Givings

(100) 872. Believing that prizes are not spurs to hard work, that they often create undesirable rivalries and that they accord in with the ideal of the school as a community, we recommend that the giving of prizes to individual pupils in secondary schools be officially discouraged and that education authorities do not make grants for this purpose. (Paragraphs 701-704.)

(101) 873. We further recommend that, even in the award of endowed prizes, schools be empowered to give books and instruments instead of medals. (Paragraphs 706 and 707.)

(102) 874. We think that, where awarded, prizes should be handed over simply in the class-room, and that schools should devote the principal public function of the year to something of greater significance. (Paragraph 708.)

Home and School

875. We reaffirm the need for full co-operation, but take note of certain pitfalls and advise against demanding too much of a generation of teachers long accustomed to other days and ways. (Paragraphs 709-713.)

Vocational Guidance and Juvenile Employment

876. We accept the conclusions of the Ince Committee that the present provision is patchy and inadequate, and that a good scheme can be worked neither without the schools nor by the schools alone. (Paragraphs 714-716.)

(103) 877. We strongly recommend all education authorities to assume full responsibility for the juvenile employment service in their areas. Machinery will vary with circumstances, but the two decisive factors will be (1) the quality and status of the juvenile employment officers and (2) the place given to the school. (Paragraphs 717-721.)

878. It remains the right of the parent, and of the headmaster acting for him, to place pupils in employment directly. (Paragraph 722.)

Clerical Help

(104) 879. The position is unsatisfactory, and improvement is too slow. We recommend that the Secretary of State take steps to bring all education authorities up to a reasonable level in this matter. (Paragraphs 723-726.)

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Radio, Visual and Other Mechanical Aids

(105) 880. We draw attention to the great potential significance of these developments; and in view of the complex educational and technical problems involved, recommend that the next Advisory Council be given a remit to inquire into this whole subject. (Paragraphs 727-729.)

Size of Classes and School Accommodation

(106) 881. We recommend that the maximum number of pupils under the charge of one teacher in a secondary school be 30 for ordinary class-subjects and 20 for all forms of practical instruction; and that, in the case of E pupils, these numbers be reduced to 25 and 15 respectively. (Paragraphs 730 and 731.)

(107) 882. A list is given of the accommodation, in addition to the accepted provision, which we suggest for a secondary school. (Paragraph 732.)

CONCLUSION

883. We wish to express our warm thanks to our Secretaries, Mr. T. Grainger Stewart and Mr. Archibald Davidson, whose special knowledge and constant helpfulness have greatly lightened our task.

884. Our signatures indicate unanimous acceptance of the broad principles underlying the Report and of the many recommendations that follow from such acceptance. It would, however, be too much to expect that in a document of such length and complexity every single statement should in its form and emphasis commend itself equally to each one of us.

We have the honour to be, Sir,
Your obedient Servants,

W. HAMILTON FYFE, *Chairman*.
GARNET WILSON, *Vice-Chairman*.

AGNES M. ALLISON
WILLIAM BARRY
E.P. CATHCART
JOHN B. CLARK
ERNEST GREENHILL
WILLIAM McCLELLAND
BRIDGET McEWEN
R. C. T. MAIR
ADAM M. MILLAR
AGNES B. MUIR
RONALD M. MUNRO
J. E. S. NISBET
W. D. RITCHIE
JAMES J. ROBERTSON
J. ROTHNIE
J. CAMERON SMAIL
W. CRAMPTON SMITH
J. HENDERSON STEWART
E. J. TAYLOR
JAMES YOUNG

T. GRAINGER STEWART, *Secretary*.
ARCHD. DAVIDSON, *Assistant Secretary*.

St. Andrew's House, Edinburgh, 1.
26th September, 1946.

APPENDIX 1**SOURCES OF EVIDENCE****1. LIST OF BODIES AND INDIVIDUALS WHO GAVE ORAL EVIDENCE****(Some of these also submitted memoranda)**

Scottish Education Department.

Church of Scotland.

Representative Church Council of the Episcopal Church in Scotland.

Roman Catholic Hierarchy of Scotland.

Dundee Institute of Art and Technology. Governors of.

Edinburgh College of Art, Governors of.

Edinburgh College of Domestic Science. Council of.

Glasgow School of Art, Governors of.

Glasgow and West of Scotland College of Domestic Science, Governors of.

Royal Scottish Academy of Music, Governors of.

Royal Technical College, Glasgow, Governors of.

Edinburgh Merchant Company Education Board.

George Heriot's Trust, Edinburgh, Governors of.

High School of Dundee, Directors of.

Marr College, Troon, Governors of.

Morrison's Academy, Crieff, Governors of.

Robert Gordon's College. Aberdeen, Governors of.

Directors of Education in Scotland, Association of.

Educational Institute of Scotland.

Handicraft Teachers, Incorporated, Institute of.

Headmasters of Senior Secondary Schools, Association of.

Headmistresses, Scottish Branch of the Association of.

Physical Education (Women), Scottish League for.

School Broadcasting, Scottish Council for.

School Music Association, Scottish.

Actuaries in Scotland, Faculty of.

Bankers in Scotland, Institute of.

Chartered Accountants in Scotland, Joint Committee of Councils of.

Medical Officers of Health (Scottish Branch), Society of.

Scottish Chambers of Commerce, Central Committee of.

British Film Institute, Scottish Film Council of the.

Classical Association of Scotland.

Edinburgh Geological Society.

English Association, Scottish Branch.

Historical Association of Scotland.

National Galleries of Scotland, Board of Trustees for the.

Robert Gordon's Technical College, Aberdeen, Engineering Committee of.

Royal Scottish Geographical Society.

Saltire Society.

Scottish Women's Rural Institutes.

Women of Great Britain, National Council of.

Anderson, D. D., Esq., M.C., H.M. Chief Inspector of Schools.
 Andrew, G., Esq., C.B.E., formerly H.M. Senior Chief Inspector of Schools.
 Baird, John; Esq., Darroch School, Edinburgh.
 Bedwell, Commander T. G., R.N.V.R., Governor, Gordonstoun School.
 Bilsland, Sir Steven, Bart., M.C., Glasgow.
 Boddie, William, Esq., Aberdeen Training Centre.
 Boyle, J. S. W., Esq., Ph.D., H.M. Inspector of Schools.
 Brown, J. T., Esq., North Berwick High School.
 Brunton, J. S., Esq., H.M. Inspector of Schools.
 Buchanan, A., Esq., Hamilton Crescent School, Glasgow.
 Chaplyn, Dr. Marjorie A., Edinburgh.
 Crawford, J., Esq., O.B.E., Director of Education, Kirkcudbright.
 Cuthbertson, K. J., Esq., H.M. Inspector of Schools.

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Duncan, Joseph F. Esq., LL.D., Aberdeenshire.
 Earle, F. M., Esq., D.Sc., Kirkcaldy High School.
 Ferguson, J., Esq., H.M. Inspector of Schools.
 Frizell, J. B., Esq., City Education Officer, Edinburgh.
 Gillan, P. M., Esq., H.M. Inspector of Schools.
 Grieve, A. B., Esq., D.Sc., H.M. Chief Inspector of Schools.
 Gunn, J. W. M., Esq., H.M. Inspector of Schools.
 Hahn, Kurt, Esq., Gordonstoun School.
 Higgins, H., Esq., Bernard Street School, Glasgow.
 Kennedy, Miss C. M., H.M. Inspector of Schools.
 Kerr, Sir John Graham, F.R.S., M.P.
 Kerr, R. B., Esq., formerly one of H.M. Inspector of Schools.
 Lamb, J. G., Esq., H.M. Inspector of Schools.
 Lambie, J., Esq., H.M. Inspector of Schools.
 Lang, A., Esq., formerly H.M. Senior Chief Inspector of Schools.
 Lawson, Miss Janet M., Depute Secretary, Educational Institute of Scotland.
 Lockhart, J. G., Esq., Falkirk Technical School.
 McColl, R., Esq., Glasgow Training Centre.
 McCourt, T. M., Esq., Edinburgh Training Centre.
 MacGregor, J. D., Esq., H.M. Inspector of Schools.
 McIntosh, D. M., Esq., Ph.D., Director of Education, Fife.
 McKechnie, Sir William W., KB.E., C.B., LL.D., Edinburgh.
 McKinlay, W. L. M., Esq., The Mount School, Greenock.
 Macleod, D. J., Esq., O.B.E., D.Litt., H.M. Chief Inspector of Schools.
 McLeod, Robert, Esq., O.B.E., Mus. Doc., Edinburgh.
 Makepeace, Tom, Esq., Niddrie Marischal School, Edinburgh.
 Mason, J., Esq., Ph.D., South Queensferry School, West Lothian.
 Maxton, G. S., Esq., Ph.D., Edinburgh.
 Morrison, John, Esq., M.B.E., Director of Education, Aberdeenshire.
 Murchison, Norman, Esq., Niddrie Marischal School, Edinburgh.
 Patterson, Miss L. M., Moss-side School, Cowdenbeath, Fife.
 Reid, R. A., Esq., Dundee Training Centre.
 Reith, George, Esq., Depute City Education Officer, Edinburgh.
 Simpson, G. W., Esq., M.D., D.P.H., Medical Officer and Chief Inspector of Physical Training, Scottish Education Department.
 Smart, Raymond, Esq., Heriot-Watt College, Edinburgh.
 Stewart, F. W. D., Esq., Bellevue School, Edinburgh.

Taylor, Vaughan, Esq., H.M. Inspector of Schools, Ministry of Education.

Wright, Thomas. Esq., Ph.D., Coatbridge Secondary School.

2. LIST OF BODIES AND INDIVIDUALS WHO SUBMITTED MEMORANDA OR LETTERS

County Councils in Scotland. Association of.

Aberdeen, Corporation of.

Dundee, Corporation of.

Edinburgh, Corporation of.

Banff, County Council of.

Moray and Nairn, Joint County Council of

Edinburgh, University of.

Glasgow, University of.

St. Andrews, University of.

Church of Scotland Presbytery of Dundee.

Citizenship, Association for Education in.

Educational Institute of Scotland, Lanarkshire Domestic Science Section of the.

Parents' Association, Dollar Branch of the.

Research in Education, Scottish Council for.

Savings Committee, Schools Advisory Committee of the Scottish.

Schoolmasters' Association, Scottish.

Speech Training and Dramatic Art, Edinburgh School of.

Teachers of Speech and Drama, Incorporated Association of.

An Comunn Gaidhealach.

Deaf, Scottish Association for the.

Electrical Association for Women, Scottish Council of the

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Glasgow Junior Chamber of Commerce.

Library Association, Scottish.

National Farmers' Union and Chamber of Agriculture of Scotland.

Voluntary Youth Organisations, Scottish Standing Conference of.

Y.M.C.A.s, Scottish National Council of.

Aberdeen Fabian Society, Education Group of the.

Communist Party of Great Britain. Scottish District of the.

Labour Colleges, National Council of.

Lewis Divisional Labour Party.

Unionist Association, Central Council of the Scottish.

Arbuckle, W. F., Esq., Scottish Education Department.

Brison, Alexander, Esq.,

Bearsden, Dunbartonshire.

Britton, Robert, Esq., Stepps, Glasgow.

Bryan, A. M., Esq., Edinburgh.

Cunningham; Miss Kate E., Edinburgh.

Dickson, Dr. T. Elder, F.R.S. E., Edinburgh.

Donaldson, Rev. Murray, on behalf of listening group, Musselburgh.

Fleming, John, Esq., Tighnabraich, Argyllshire.

Forbes, R., Esq., D.S.O., M.C., H.M. Inspector of Schools.

Foster, Miss Allison E., and others, Edinburgh.
 Gray, Alexander H., Esq., Aberdeen Grammar School.
 Henderson, Mrs. I., and others, Inverness.
 Julian, Mrs. Joan B., Carnoustie, Angus.
 Kerr, Miss M. E., Edinburgh.
 Kydd, J. J., Flight Lieut., R.A.F.
 Liguori, Brother, Dumfries.
 Lindsay, W. K., Esq., Edinburgh.
 Matheson, J., Esq., Wishaw.
 Napier, Miss Margaret M., and others, Edinburgh.
 Neville, Robert, Esq., Glasgow.
 Paterson, John W., Esq., Ph.D., Longniddry, East Lothian.
 Renwick, Miss Ada M., Glasgow.
 Rodger, A. G., Esq., .O.B.E, Scottish Education Department.
 Russell, James A., Esq., Ph.D., D.Litt., Glasgow.
 Seymour, Mrs. I. M., L.R.C.P., L.R.C.S., Department of Health for
 Scotland
 Shepherd, F. P., Esq., Edinburgh.
 Snodgrass, Miss Catherine P., Ph.D., Edinburgh.
 Somerville, Rev. R. K., Greenock.
 Stephen, Miss Eva M., Edinburgh.
 Stewart, Provost A. A., Gatehouse-of-Fleet.
 Thomson, Robert D., Esq., Glasgow.
 Wilson, Professor J. Dover, D.Litt., Edinburgh.
 Wood, Miss Wendy, Lochailort, Inverness-shire.

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APPENDIX 2

EXTRACTS FROM REPORT ON PRIMARY EDUCATION

I

SCOTTISH TRADITIONS

1. Place and Value in General

Questions about the place of Scottish traditions in the Scottish educational system have been brought to our notice in two ways: negatively in the form of objections to the encroachment and acceptance of English ideas and procedures; and positively in the demand that more attention should be given in the schools to Scottish history, literature, music and ways of life. We have therefore felt that it was within our remit to give serious consideration to this matter.

While not wishing to touch the general problem of nationality - far less to discuss political nationalism; which is quite beyond our sphere - we have found, because of the close association that exists, and the even closer association that ought to exist, between education and the life of the community, that this problem cannot be discussed with reference to the school alone. It is therefore necessary to begin by discussing the place and value of Scottish traditions in general.

Scotland is one part of an island that has a great deal in common as regards history, habit of mind and the ordinary affairs of life. The major racial distinction is not between north and south but between the whole main part of the island and its western fringe. There has been a common citizenship since 1603 and a single economic and political structure since 1707. The Industrial Revolution of the eighteenth and nineteenth centuries altered the balance of population in Scotland and profoundly modified the outlook and circumstances of its people. Machinery took no account of frontiers, and industrial development had little regard to local sentiment; old landmarks were ruthlessly destroyed, and old customs and ways of life were regarded with contempt. Southern speech and manners, often acquired at boarding schools in the English tradition, seemed to smooth the way to personal advancement. Scottish sentiment largely degenerated into sentimentality. It might have seemed that "Scotland" and "Scottish" had no further significance than as geographical expressions.

But the position today is not quite like this; and it is likely to be still more different in the future. Apart from coteries or minority movements, it would be reasonable to say that Scottish national feeling is probably more wide-awake at the present day than at any time since the Union of the Parliaments. It is, however, not a movement of antagonism to England but a growing determination that Scotland should not be submerged, ignored or treated as a "province" or a "region".

This revival of Scottish feeling is based on a new understanding of the factors that are of permanent significance in the life of a nation. Today perhaps for the first time in history it is practicable to view the whole of mankind as a single family, members one of another, and interdependent; and to assume that the benefits conferred by inventors, discoverers, pioneers and prophets are for the use and enjoyment of all. But along with this greater feeling of community there is growing also a wider recognition of the claims of diversity. The world has rejected with terrible emphasis the proposition that it will be organised on a German or a Japanese model. It is beyond either hope or fear that every country will permanently organise its political and social life even on a British or American or Russian model. The fundamental international problem of today is to induce every state not merely to acquiesce but to rejoice in the fact that other states want to arrange their political affairs and ways of life to suit themselves, provided only that they do this without disparagement or danger to others. It should not be thought surprising that true co-operation not only permits but demands diversity. There are differences of latitude, temperature, rainfall, geology, physical features, coastline, vegetation, communications, racial character and historical background that inevitably cause life to be lived in a great variety of ways in different parts of the earth.

Montaigne thought it strange that every man should be contented with the place where nature had settled him, and that the "savage people of Scotland" should prefer their own land to Touraine. People living on any spot of earth usually want to stay there, and without interference from outside to maintain their own characteristic way of life. That all peoples should be indifferent wanderers on the face of the earth, rootless and homeless. with standardised food, customs, tools, language, thoughts and amusements, is a prospect too dismal for contemplation. If it be granted, then, that every country has the right

to live its own life, and the privilege of making its own contribution to the life of other peoples, it is surely reasonable to consider, as we propose to do under several headings, what characteristics are typically Scottish and what contribution Scotland has to offer in the present or in the future to the world in general.

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2. Typically Scottish Characteristics

From the eleventh century, and very consciously from the end of the thirteenth century, Scotland was a politically independent nation. Wallace and Bruce were amongst the earliest of European heroes who led a nation in defence of their own soil. The declaration of Arbroath in 1320 -

So long as a mere hundred of us stand, we will never surrender to the dominion of England. What we fight for is not glory nor wealth nor honour, but freedom, that no good man yields save with life

is one of the noblest as well as earliest formal proclamations of the rights of nationality. The spirit thus declared maintained itself in that appalling unequal struggle with England that went on intermittently for the next three centuries in spite of misfortunes and defeats; and when the end came in 1603, the rejoicings of the Scottish people over the succession of James VI to the English crown indicated their relief that the age-long conflict should have been thus bloodlessly terminated in a way so satisfactory to themselves.

The Scots were "good Europeans". The English frontier being usually closed and always dangerous, the trade routes of Scotland went from west to east across the country to ports trading with Norway and Sweden, the Baltic ports, the Low Countries and France. Scots abroad were known as men of learning, merchants and soldiers of fortune; and they carried their national character with them.

Democratic self-government was developed at an early stage in Scottish history and has in one form or another remained an unbroken tradition. Many forces conspired against the satisfactory solution of the problem of a suitable system of national government; external war, the difficulties of communication, the power of local chiefs and the early deaths of her most capable rulers; but a system of free local government, democratic and stable in character, developed from the 12th century onwards in the Royal Burghs, and was later extended to others. No one who reads their records over several centuries can fail to be impressed with the characteristics shown therein of tolerance, common sense, justice and zeal for upholding the rights of the burgesses and of the community as a whole. The sagacious rule of the unarmed bailies and provosts and the high sense of civic duty of the burgesses are insufficiently known and appreciated because their doings were seldom dramatic or spectacular. Yet it was from this background of civic experience that the pioneers of the Scottish reformation extended church government on a democratic basis from the towns over the whole country.

Scotland has contributed her full quota of those men who have benefited not only their own country but all mankind by their

contributions in the realms of thought and action and material progress - in engineering, invention, medicine, economics, philosophy, geographical discovery, literature and the arts of government. Following these great men there marches an army of more humble practitioners of these activities who have upheld the name of Scotland in all parts of the world.

Behind these traditions and achievements and largely responsible for shaping and bringing them about there are certain moral and intellectual characteristics which have been identified by foreigners during the centuries as typically Scottish. In a memorandum prepared for us on the subject, the Saltire Society have given us a reasoned catalogue of such characteristics; and we summarise these, not as boasting, or as suggesting that they have ever been present in all individuals or in all ages, but as indicating the reputation that Scotland has achieved as a nation and should endeavour to cherish and maintain in the future.

- (1) PRIDE: the personal pride of which the legendary figure of Sir Patrick Spens is typical, and which gave currency on the Continent to the proverb "fier comme un Ecosais"; and the decent national pride in everything that is worthy in our long tradition.
- (2) NATIONAL LIBERTY, first achieved in the days of Wallace and Bruce, of which G. M. Trevelyan says: "A new ideal and tradition of wonderful potency was brought into the world; it had no name then, but now we should call it democratic patriotism."
- (3) INTEGRITY OF THOUGHT AND CHARACTER, including personal reliability and honesty of craftsmanship.
- (4) PERSONAL AND INTELLECTUAL INDEPENDENCE.
- (5) GENEROSITY AND KINDLINESS.
- (6) ADVENTUROUSNESS.
- (7) FREEDOM FROM CLASS-CONSCIOUSNESS.

These qualities cannot be directly taught. They must be "in the air" of the school.

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There is indeed a serious danger that these traditional characteristics may be either despised or forgotten, or replaced by traditions of a shabby and degrading kind. It is surely wrong that a proud and ancient race should complacently suffer itself to be caricatured at home and abroad as a type of meanness, smugness or maudlin sentimentality. There is a kind of tolerance which is no virtue, either in an individual or in a nation.

3. How to impress Traditions and Characteristics on School Children

We have now to consider by what methods these traditions and characteristics can be impressed on the children in our Scottish schools.

(1) THE EDUCATIONAL SYSTEM

Scotland has a high educational reputation to maintain. There are those who whisper that this reputation has been lost, or is in danger of being lost. This has not been proved, and indeed it would be difficult to find real evidence to prove it. But complacency, if it exists anywhere at the present time, is unwise and unhelpful. The times demand that our fine old traditions be fitted to wider purposes.

Our educational system is not always understood south of the Border. Any temporary opprobrium that may in England attach to "Council" schools does not exist in Scotland. There is no native tradition of "public" or boarding or preparatory schools. Our public schools are day schools, whether primary or secondary. These are not nineteenth century innovations, but have an ancient national tradition behind them, dating from the Reformation or long before. Some of our day secondary schools in the burghs have many centuries of continuous history, having unbroken records of up to eight hundred years. Over 97 per cent of the children in Scotland attend schools under the direct control of the education authorities or receiving grants from the Secretary of State. It may fairly be claimed therefore that the Scottish system of education is both democratic and national.

Some of our witnesses have expressed the regret, which is widely felt, at the decrease in size and prestige of many of our rural schools, and that "the country schoolmaster, with all that he once meant to the community, is rapidly disappearing". Here it must be plainly stated that education authorities have to be realistic. Just as the decay of rural Scotland in the past century was due to well-understood economic causes, and not at all to the lack of good education in the parish schools, the rehabilitation of rural Scotland could not be effected by setting up in every small area fully equipped and adequately staffed schools. None are more anxious than those who have the welfare of Scottish education at heart - Department, authorities and teachers alike - that the rural areas of Scotland should have a large and thriving population. But this can be achieved only through a widely planned national policy, in which education will take a responsible and generous part. Such, it must be recognised, is the spirit and the promise of the 1945 Act.

(2) LANGUAGE

Scotland, with the exception of the Highlands and Western Islands, is one part of the native home of the language which is called English. That language was never confined to the geographical area of England. Indeed it was the tribes more specifically called Angles who settled in North-East England and East Scotland. Of the three main early forms of English, Northern English was the language of court and culture and everyday life in the Kingdom of Scotland. This is one of the reasons why we have proclaimed it as the first duty of every school to give every child its rightful heritage of good English speech. But it by no means follows that this good standard English should be the English of London and the Southern Counties of England. We were reminded by witnesses of the statement of Robert Bridges that standard English as spoken by educated people in Scotland is "a firmer and cleaner form than the Southern English of today". As in other spheres of civilised life, we accept variety of form not merely because it is inevitable but because it is a pleasant thing in itself. We welcome the variety of good standard English as spoken by people

from Yorkshire, Cornwall and Virginia as well as Scotland - "stained with the variation of each soil".

There is, of course, a difficulty. We cannot recapture the fine "Scottis" of the courts of James IV and V - the language of Dunbar, Henryson and Gavin Douglas. The more Southern English of the authorised version of the Bible had a tremendous affect in Scotland. The greater mingling of Scots and English during the Reformation and especially after 1603, and the removal of the Court to London, further helped to make the Scottish form of English unfashionable. In the eighteenth century Scottish men of letters like David Hume made a point of eliminating from their published works all Scottish expressions and turns of speech. The only "Scots" that retained real and widespread vitality was the rural or peasant speech which became a literary vehicle as in the dialect poems of Burns. Today it remains the homely, natural and pithy everyday speech of country and small-town folk in Aberdeenshire and adjacent counties, and to a lesser extent in other parts

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outside the great industrial areas. But it is not the language of "educated" people anywhere, and could not be described as a suitable medium of education or culture. Elsewhere, because of extraneous influences it has sadly degenerated, and become a worthless jumble of slipshod ungrammatical and vulgar forms, still further debased by the intrusion of the less desirable Americanisms of Hollywood.

Against such unlovely forms of speech masquerading as Scots we recommend that the schools should wage a planned and unrelenting campaign. Any attempt at improvement by detailed criticism would in our opinion be futile. A bolder and more positive policy is needed. As we have indicated earlier in the Report the first duty of the infant teachers, and the continuing duty of all primary teachers, is to implant and cultivate fluent speech in standard English.

In the higher classes of the primary school - say in the last three years - we recommend that a short but definite weekly period should be set aside exclusively for Scottish traditions and language, including the reading and recital of verse and prose, telling of stories and the discussion of typically Scottish words, phrases and proverbs. Familiarity with this world of homely Scots should be a suitable introduction to the study of Scottish Literature which should have a definite place in every secondary course. The giving of a separate period in the primary school seems, however, to be necessary to give this study a dignity of its own, instead of the casual and apologetic treatment, if not neglect, from which it so often suffers.

(3) LITERATURE

As children are being trained to speak and write in what is emphatically their own English language, it follows that by far the greater part of their attention should be concentrated on English literature. They should be reminded that while they share this literature with English-speaking people all over the world they have something that is peculiarly their own. As regards Scots verse and prose already in existence, it is of importance to insist on standards of

taste and quality. The mere fact that Scots dialect is being used, or is pretended to be used, should not involve the acceptance of material that is in itself mediocre, pretentious, sentimental or vulgar. Good Scots prose and verse can still be written; but the future prospects of literary composition in Scots dialect depend largely on the existence of an intelligent public willing to give it appreciation and encouragement. We therefore recommend that the production of anthologies of Scots verse and prose for schools should be encouraged, that the pieces should be carefully chosen for their intrinsic value, and that recent work of good quality should be included. Such anthologies might also include a selection of proverbs, many of which are of great pith and epigrammatic force, and vividly reflect the character and conditions of life of old Scotland. At every stage of the secondary school there should be included in the scheme of work in English provision for the study of appropriate examples of Scottish literature. In particular we believe that every child in the younger classes should be familiar with our unique ballad literature, and that senior pupils should be at least as familiar with Dunbar, Henryson and Gavin Douglas as they are with Chaucer.

In drawing attention to the Scottish National Dictionary, on which so much good work has already been done, we express the view that it will be of great value to Scottish schools - but only if it is regarded as a guide to living study rather than a mausoleum.

(4) MUSIC

Schools in future will be judged less by the criteria of success which they have set up for themselves than by what their pupils are able to "carry over" to the outside world. Judged by this standard, which is not unreasonable in relation to modern definitions of education, the teaching of Scottish songs in our schools cannot be claimed to have been very successful.

Scotland has a great heritage of folk song: dignified, tender, humorous, mournful and full of the love and loyalties and intimacies that lie deep in the national character. Yet much of this heritage is unexplored and very little cultivated. These songs in their great number and variety must have come from a people that loved not only to sing but to make songs. Today we could not be called a singing people. Only a few hackneyed songs are known at all by any ordinary gathering of people, and these not the best, nor even accurately remembered. There is little feeling for quality: little discrimination between the first rate, the reasonably good and the contemptible rubbish - without a trace of national musical character - that often passes today for Scottish song.

It would take us too far from our general purpose in this Report to analyse the complex causes of this regrettable decay. That it has taken place is a matter of general observation, and was also the unanimous opinion of our witnesses. Equally unanimous, however, was the opinion that the position is by no means past remedy, and that practical measures can

be taken to restore to the next generations a knowledge and love of the old songs of their native land. As was suggested above, the objective is at once bold and simple: that when occasion arises, any gathering large or small of Scottish people should without painful reference to the printed page, or dependence on a musical instrument, sing spontaneously and confidently a reasonable body of the best of their own traditional airs. These airs are still beloved by a considerable number of people, and warmly appreciated when they do happen to be sung. They are by no means museum pieces. All that is needed is a systematic scheme for restoring them to public currency. Without such a revival and such a foundation Scotland will never become a singing or creatively musical people.

We recommend therefore -

(1) That as a definite policy in all Scottish schools the children from the earliest years should learn by ear a considerable number of the best Scottish folk tunes and also be thoroughly familiar with at least several verses of the words; that they should be accustomed to sing them without piano accompaniment; and that they should be encouraged and given opportunities to sing them spontaneously and naturally both in and out of school; and that so long as a good singing tone is maintained, the children should not be unduly troubled with details of musical technique or expected to reach meticulous precision of performance.

(2) That a responsible body such as the Saltire Society should undertake the publication of a widely representative collection of the best Scottish songs, giving the words and music (the melody in both notations), which could be published at a reasonable price in a large edition for school and general use. Such a collection should include Gaelic airs; and we also suggest some of the finest psalm tunes (in harmony) by Scottish composers, including a few of the lovely precentor-led tunes still sung in some Highland churches.

While we cannot dwell at any length in this Report on the subject of Scottish instrumental music, we record with approval the views of our witnesses that, however valuable the piano may be as a means of musical education there are other instruments usually less expensive and certainly more portable, that are popularly associated with the very large body of traditional Scottish dance music - bagpipes, fiddle, melodeon, and even the mouth organ. In the past there were Scottish dominies who used the fiddle as a means of instruction in Scottish songs and dances, and there seems no reason why this excellent tradition should not be revived.

(5) DANCING

During the last generation, owing to the efforts of the Scottish Folk Dancing Society, there has been a considerable revival of interest in the large and varied body of traditional folk dances belonging to this country. There are now few schools in Scotland where some at least of the old dances and singing games are not taught either by the class teacher or the visiting teacher of physical education. We recommend

that this revival be encouraged and extended, subject to one provision only. While they must be accurately known, they should not be taught merely as physical exercises, or with too solemn and careful precision, but as a joyous recreation which the children may be induced to transfer from gymnasium to playground and retain in memory and practice for their own pleasure in later life. In this matter we should also avoid being too parochial. It is a primary duty to teach the Scottish folk dances, but these should later be supplemented by dances of a similar kind from England and by the many delightful varieties from several European countries.

(6) HISTORY

Scottish history is by no means neglected in our schools; but both method and emphasis appear to us to be mistaken. It not infrequently takes the form of a chronological survey, giving up to 1603 or 1745 much attention to trivial anecdote and dead controversies, and for the last two centuries an insipid and perfunctory summary. The child will quickly draw from any text book based on these principles the reasonable conclusion that the history of Scotland from 1745 does not matter. Superficially, and especially as regards politics, diplomacy and war there is a semblance of truth in this idea. But seven-eighths of a country's history is, like an iceberg, beneath the surface. Scotland since 1745 has changed enormously, in population, communications, industry, outlook and manner of life. This modern Scotland is the land that the children of today and tomorrow have to live in and should therefore know and understand. As we have in our sections on Nature Study and on History already emphasised the importance of beginning from the actual environment of the child, it requires only to be mentioned here that such a method will not only give him a grasp of present-day Scottish life, but also a motive for getting to know the historic background of the life of his native land, and also something of the long story of human development. Regarded in this way, Scottish history is not merely

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a collection of romantic episodes suited only for the primary school but a study that should be seriously and systematically continued in the secondary school. Only in this way can pupils get a background of knowledge adequate to enable them to take an intelligent interest or active part in the public life of their native country.

We may under this heading draw attention to the local festivals that are a feature of the civic life of many of our Scottish burghs. Some of these, like the Common Ridings of the Border towns, are of immemorial antiquity. Others are revivals of ancient festivals; and several more have been instituted on similar lines as picturesque celebrations designed to arouse and focus local patriotism. We commend these movements, which were increasing in number and popularity in the period before the last war, not merely or even principally as gala days for children, but as a time of celebration and commemoration for the whole community. The ancient practice of riding the marches was, of course, not confined to the Border burghs and a few others; they were at one time an annual civic duty in other towns, including Edinburgh, Aberdeen, Dundee and Glasgow. (In this connection we have noted with great interest the revival this year of

the riding of the Edinburgh Marches for the first time in 225 years.) There are few of our burghs, large or small, that have not a special local date or historic event that might form the nucleus of such a celebration. If carefully and competently planned such festivals may do much to revive the corporate spirit of the community. Local songs and traditions should be collected, published and become familiar to all from their school days. The festival should be the occasion of an annual holiday spent by the citizens in their own town, when visitors will be welcomed and exiled natives will find it a pleasure to return to the scenes of their childhood.

(7) GEOGRAPHY

There is no real antithesis between travel at home and abroad. Who loves the one will usually love the other. Everything depends on the spirit in which one sets out. It is possible to go from Dan to Beersheba, or from Cape Wrath to the Mull of Galloway and find all barren. Geography is essentially a field study, and a preparation for real or imaginative travelling. We have already emphasised the importance of planned excursions, and do so again in this place because of the importance of giving young people a chance to visit and appreciate unfamiliar parts of their native land. The powers of the education authorities are wide enough to enable them to co-operate in hostel schemes and provision for exchange of pupils or classes. Such excursions and exchanges should, of course, not be confined to "beauty spots" but should give a pupil a chance of learning something about the industries and ordinary living conditions and historic monuments in other parts of his native land.

(8) ARTS AND CRAFTS

We need add only a short note to what has already been said under the general headings of Handwork and Art in this Report. There is no cry more insistent throughout Scotland today than the demand for new industries. It is too often assumed that these will fall from the sky or come from somewhere else on the initiative of some individual or corporation or the State itself. All the great businesses and industries we know began originally in a small corner from the initiative of an individual or a group of individuals. Scotsmen in the past have been prominent in showing such initiative, and it is not too much to suggest that self-help and enterprise are still typical Scottish qualities. A considerable part of Scotland is not so well suited for industry on a mass production scale as for small and characteristic local industries, in which labour forms a large percentage of the cost and quality is an important consideration. Though a good many have disappeared, we still have a considerable number of small industries of this kind scattered over the country. If these are to be cherished and developed, and older crafts revived, there must be a close association between the industries and the schools. Without knowledge there can be no pride, and pride in craftsmanship is an important element in publicity and commercial success. We do not suggest for a moment that the school should be a forcing house for apprentices. But we believe that the industry of the district should wherever possible be reflected in the crafts of the school. Apart from other advantages direct and indirect of such a policy, many who will never enter the industry will be better educated by getting insight into at least one industrial process. If they are still living in the same community they will be able to give the industry more intelligent understanding and support from outside; if

they make their home elsewhere they will become conscious or unconscious publicity agents for the industry and craftsmanship of their native place.

(9) THE GAELIC TRADITION

The question of Gaelic studies has been too exclusively regarded as affecting only the "Celtic fringe" of Scotland. and the language that of a scattered and diminishing remnant.

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We suggest a different attitude. This was the language of the whole land before a word of English was ever spoken in it. Any large scale map of the Highlands or the Western Isles bristles with names of mountain, stream and glen that seem strange and foreign to the lowlander but were bestowed long ago by the ancient race whose homes were there.

Even in the Lowlands the great majority of the hills and streams have Celtic names. In varying amounts there must be Celtic blood in most native Scots, though they know not a word of Gaelic; and so too perhaps some little-suspected Celtic element in their character. People poor in this world's goods, and living somewhat apart from the main stream of civilisation, tend to maintain in their primitive life the dreams and thoughts and arts of an earlier age; and this is true of Gaelic Scotland. We think it is worthwhile cherishing this language and culture, not merely for those who are born into it, but for the sake of the rest of Scotland. We therefore recommend that all Scottish children should learn something of Gaelic life and legends and traditions. Some pupils as they grow older may wish to learn the Gaelic language and read its literature; and for these, opportunities at selected schools may one day be provided. As for the Gaelic-speaking areas themselves, we recommend that all possible steps be taken to get an adequate number of Gaelic-speaking teachers and an ample supply of suitable class books and texts in the Gaelic language.

(10) BROADCASTING

Broadcasting in Scotland raises the same sort of problem as we have already discussed in connection with education generally. Scottish people are deeply concerned in the life and affairs of Great Britain as a whole; they cannot cut adrift or become parochial. But there is something specially their own that they want to preserve - not merely dialect or songs or news or local customs, but a Scottish way of looking at life and events and reacting to them. How far this involves special broadcasting arrangements for Scotland is a matter beyond our province. We desire, however, to record our appreciation of much that the B.B.C. has done. In the broadcasts for Scottish schools there is close co-operation with the teachers. The B.B.C. themselves, under the guidance of their Scottish staff, have made sporadic but not inconsiderable efforts to popularise Scottish music and other forms of culture: they have not infrequently brought Scottish speech and customs and social life in different areas before the microphone; and they have given an opportunity to many typical Scots to state their views about public affairs. If the public of Scotland become more conscious of their independent traditions. and more insistent on

getting the fullest opportunity to develop their own economic and cultural life, they will inevitably demand the corresponding development of a Scottish broadcasting system.

(11) CULTURAL AGENCIES

Among the many recent efforts and movements that have had as their purpose the reawakening of the Scottish spirit, none has been more significant than the Saltire Society. During the ten years of its life it has already accomplished much by meetings, publications, exhibitions and in the co-ordination and focussing of public opinion. It has succeeded remarkably in being Scottish but not nationalistic, widely inclusive in membership but with well-defined objectives, cultural without being "precious", and thoroughly practical in concerning itself with good architecture and the industrial future of Scotland. We express the hope that in many ways the activities and influence of the Society may extend to the revival of the best type of Scottish traditions in the schools.

We also commend the work of the Arts Council in bringing good music, pictures and plays to many parts of Scotland which have never before had such opportunities. We hope that education authorities will assist them to play a considerable part in fostering the development of the Arts in Scotland; and in particular in giving encouragement to such enterprises as the repertory theatres which are at present making a significant effort to establish a native dramatic tradition in Scotland.

II

FUNCTIONS OF THE TEACHER

References to the "extraneous" duties of teachers usually convey the suggestion that, in the historic phrase, "they have increased, are increasing, and ought to be diminished". But the use of the expression "extraneous" makes assumptions about the "intraneous" or normal duties of teachers which should not be allowed to pass without question. The teachers of Scotland have had a long struggle to obtain full professional status, and through the Teviot Scales - and still more through the attitude of the community that made these scales possible - they may now be said to have achieved it. The duties of a teacher are therefore expressly professional duties. The idea of a "profession" is the obligation to perform highly skilled duties in the public interest, not for a specified number of hours or

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on a piece-work basis, but reasonably according to individual conscience and the needs of the service. Education Acts, Orders and Regulations, which are precise about most matters, have never expressly defined the length of a teacher's day or year. As professional men and women, teachers must, for the convenient performance of their duties, submit to certain prescriptions of time and place and occupation; but the efficiency and devotion which they give to their task is more a matter of professional conscience than external compulsion. At the same time they must have regard not only to their own wishes and theories, but also to the kind of function that society expects them to perform. It is precisely here that the difficulty occurs. During the last generation there has gradually arisen a much

wider conception of the meaning of education. If there are teachers who regard the nine-to-twelve and one-to-four custom as practically a law of nature, and if there are some who still take the traditional view that education is merely an intellectual process of instruction, it is not altogether surprising that they should be distrustful and even rebellious when confronted with new and disturbing demands on their time and energies. But there can be only one answer to them: they must as professional people accept and operate the new conditions as best they can - provided always that these new conditions are in themselves not unreasonable.

This is the background against which we examine the list of duties other than "straight" class teaching which teachers are now generally called on to perform. We are aware both from information supplied by witnesses, and from other sources, that there exist real difficulties and grievances in addition to the misconception already referred to. As we have dealt in some detail with the duties of headmasters, we shall in this place refer mainly though not exclusively to duties of this kind falling upon the class teacher. These may be divided generally into (a) duties which must be undertaken when the class is present, and (b) duties which may be undertaken when the class is not present. We recommend that all duties of the latter type be carried out within the school hours of the teacher but not within the class hours of the pupils. It is mainly regarding the former type that difficulty may arise. The duties in question may be considered under four headings.

(1) FORMAL DUTIES

These consist of writing up registers, daily registration, summaries, lists of absentees, marks and record cards. The only ones that require to be done in presence of the class are registration and lists of absentees; and the time taken up with these is trifling.

(2) HEALTH DUTIES

A good many of these are to be regarded as ordinary teaching duties - supervision of cleanliness, lessons about good habits and road safety instruction. Weighing and measuring and filling up of cards would appear to be normally duties for the nursing staff and only exceptionally for the teaching staff. Children must be withdrawn as individuals from class for medical inspection and attendance at clinics. This is a real complication of the teacher's work, whether regarded as loss of time for the individual pupils, disturbance of the class, or the need to send out pupils at a particular time. The teacher must, however, take the wider view that the final objective is better health, better attendance and better education for each child. One thing, however, needs to be said. In order that the duration of absence from class may be kept as short as possible, there should be intelligent co-operation in detailed arrangements and timing between medical and nursing staffs on the one hand and teaching staffs of the other. Children should not be required to wait idly for periods which could with a little foresight be considerably abbreviated.

Improvement may also be effected in two other ways. Clinics should be greater in number and smaller in size. Where the size of the school permits, the clinic should be attached to the school itself, so that the need for children to leave the school premises may as far as possible be avoided.

(3) MILK AND MEALS

(a) Duties Involved

These new services involve new duties of several different kinds.

(1) Finding out how many pupils want milk and meals. This must be done for the purpose of ordering; it cannot be avoided, and must be done in the presence of the class. For this purpose only a few moments are needed.

(2) Receiving payment. This is more serious, no matter how simple the scheme, as there are always the complications of absence and necessitous cases in addition to the checking of the cash. When the proposal to give free milk and dinners as a part of the family allowance is carried into effect, this duty will disappear almost entirely.

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(3) Consumption of milk. This should be done, and generally is done, in a methodical and disciplined way. There is no occasion whatever, in a well managed school, for the mess or waste of milk that have been alleged by outsiders. The process inevitably takes time - not less than five minutes.

(4) Supervision of meals. This subject raises important issues which we have thought it necessary to consider in some detail.

Milk and meals have come into the schools, not as something foreign and extraneous, but as a part of the normal educational provision; and as such they will have to be accepted. The duty of arranging for supervision of meals will fall upon the headmaster as a normal part of his functions.

(b) Two Separate Transition Periods

In the school meals scheme it is necessary to recognise two separate transition periods before completely normal working is realised.

The first transition period has been during the war years and up to the present, when meals have been provided in the larger and more accessible schools on a basis of payment for the actual cost of raw materials: a period of improvisation and experiment, in which the percentage all over Scotland taking meals has reached almost 28. If the small number of schools, chiefly senior secondary, that have for many years made a feature of school lunches be left out of account, it may be said generally that the schools of Scotland had no accommodation expressly provided for such a purpose, and that very few had vacant accommodation that could be readily adapted to serve this purpose adequately and efficiently. Rooms and halls serving other and very different purposes have therefore of necessity been utilised. The war-time scheme was therefore started under conditions, difficult in operation and open to criticism on many grounds, that might have been discouraging but for the spirit of co-operation of all parties

concerned, and in particular the voluntary efforts of members of the school teaching staffs. No one concerned for the future of the school meals service believes that such conditions should be tolerated a moment longer than is necessary. On the other hand, there are few if any who would suggest that the school meals service should be suspended till ideal conditions are available. But the conditions under which school meals have to be served in many schools not only make the work of supervision difficult and distasteful, but tend to defeat the social and educational purposes of the school meal upon which considerable emphasis has rightly been placed.

The second transition period is the one we are now approaching, when meals will be available free of charge to all pupils and may probably be taken by at least 75 per cent of the pupils in all Scottish schools, and when the provision of special accommodation is still far from complete. The foresight that has been shown in the policy of providing dining halls has not nearly been equalled by their actual provision or the speed of their construction. But in demanding a very high priority for special dining accommodation in all Scottish schools, we cannot shut our eyes to the difficulties with which any Government must be faced in the early post-war period. The limitations and discomforts of improvised dining rooms, serious as they are, cannot be compared with the miseries and frustrations suffered by those who require and cannot obtain a dwelling of their own. We therefore recommend, subject only to recognition of the pressing needs of the housing situation, that the provision of special dining halls for all Scottish schools be completed with all possible speed. For some fortunate schools, where dining halls have already been erected or are in course of erection, this transition period has already passed or will soon pass; and they will be in a position to formulate a scheme of supervision to cope with the expected increase in numbers. But it must be admitted that in other schools difficulties more acute than at present may still for a limited period be experienced. In view of the endless differences of circumstance as between one school and another, and of the temporary and exceptional position, we do not think it practicable to recommend any general departure from the arrangements that are at present general throughout Scotland. We feel, however, that the teachers of Scotland who have undertaken this new duty as a matter of professional conscience and for the sake of the boon that school meals confer on many of their children, are entitled to a definite pronouncement regarding Government policy on the lines indicated above.

The proper working of the school meals scheme can be attained in any school only when special dining accommodation is made available. As these conditions already exist in some schools, and the number may be expected to increase steadily, we have found it necessary to include in our Report some consideration of the problem of supervision under what will become normal conditions.

(c) Purpose of Supervision

A distinction must first be made between the purpose and the method of supervision. The purpose of supervision may conveniently be considered under three headings.

(i) Order and Routine

The headmaster in co-operation with his staff will work out in detail a plan for the partaking of the daily meal. This plan should include the position of the dining and service tables, the allocation of the children to tables, the duties of the paid dining hall staff, the help that may be given by the older pupils, the formal beginning of the meal, arrangements between courses, the orderly ending of the meal and where required the organising of separate sittings. Before the children enter the dining room they should have time to visit the toilet and wash their hands. (For this purpose the provision of hot water is important, and the number of basins will in most schools have to be increased.) Where the discipline of a school is otherwise good, the efficient carrying out of these arrangements presents no great difficulty.

(ii) Dietetic Aspect

The quality, quantity and condition of the dinner provided must have daily oversight. Some children omit, or wish to omit, parts of the meal which are most essential to them. Such omissions have seldom if ever a sound physiological basis, but are due to unsuitable feeding at home, the strangeness to them of some of the food provided or to fads and fancies variously acquired. Skill and tact are required to persuade or coax children to try some article of food at least once, or eat a small portion of it.

In spite of the admitted efficiency of large cooking centres and of the arrangements for conveyance of hot meals, we believe that the best dietetic results will be obtained by having meals cooked on the premises. The appearance, taste and smell of the food, and the general amenity of the dining arrangements all have a definite effect on the value of the meal. Good presentation of meals encourages appetite, in the same way as good presentation of lessons encourages learning. Food will do people more good when they are enjoying it than when they are merely swallowing a dietitian's prescription.

(iii) Table Manners

The lack of early training in table manners is a serious social handicap. To be able to hold and to use spoons, forks and knives properly for their varied purposes is at least as important in its own way as the proper holding of a pen. As some children receive less adequate home instruction in these matters than others, a certain amount of school training is necessary. A few well-devised class lessons will minimise the amount of individual correction required in the dining room; and if some simple information can be given about food values, the children may be encouraged to try parts of the meal that they might otherwise leave untouched.

Children should be taught not to hurry meals and encouraged to masticate their food properly. They should early acquire the courtesies of the table, and free conversation should not be discouraged. The standards set should be those of a well-ordered home. Such standards set and insisted on from the beginning are soon accepted, copied by newcomers and become traditional. Children who have attended a nursery school will of course already have received a training in table manners.

(d) Method of Supervision

The method of supervision remains to be discussed. It will be noted that all the three purposes of supervision discussed above require both skill in instruction and knowledge of the pupils; and that should involve both staff meetings and specific class lessons. We therefore cannot escape the general conclusion that these must become a normal part of the professional duties of teachers as now more widely conceived. But in saying this we must equally concern ourselves not so much with the abstract rights of the teaching staff as with their needs and reasonable requirements; and one of the most important of these is a short period of rest and refreshment during the mid-day break to enable them to tackle the work of the afternoon with satisfaction to themselves and to the best advantage of the pupils. During this period, which should be not less than half-an-hour, they should be free of the presence of the pupils and of all responsibility for them.

Where school staffs take their meal in the dining hall along with the pupils, whether at a separate table or according to the family system with a teacher or a senior pupil presiding at each table, the presence and example of the teaching staff does more to maintain high standards than formal patrolling.

In large schools the food for pupils in the infant division may be served separately. Considering the great amount of help that infants require, especially in areas where home conditions are not good, it may not be possible for the supervising staff to get an uninterrupted meal while the children are having theirs, and arrangements should then be made for the staff to have their meal later. Owing to the longer break that is usual in infant divisions they can still have a reasonable rest period before afternoon school begins.

A serious problem associated with the mid-day meal arises from the fact that a large body of pupils will be on the school premises or in the play-ground or elsewhere for at least

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half-an-hour before afternoon school begins. Because of larger numbers and greater length of time, the problem of playground supervision is-considerably intensified. Some measure of responsibility must always be accepted by the school authority for the conduct and safety of pupils within the school and playground, and for their not wandering into danger outside the school gates. While the possibilities of danger and mischief will vary greatly with the local circumstances of each school, these are usually present in some form. We therefore recommend that education authorities should give this matter early attention. As regards the comfort of the pupils we draw attention to the recommendations already made about shelter in paragraph 34.* A shed that may give passable shelter for ten minutes is completely inadequate and unsuitable in inclement weather for half-an-hour or more. If a school is going to fulfil different functions, it must be a different kind of school. The "crush hall" forming a part of the main school building, with seats round the walls and adequately heated, is a necessary complement to the dining hall.

The problem of personal supervision during this period cannot be easily solved. The dimensions of the problem are however easily stated. The object is to ensure (1) that no danger to the children arises through the fault or negligence of the authority, (2) that school regulations made in the interests of the safety of the pupils are duly observed, (3) that wilful damage is not done to the property of the authority; and (4) that a general oversight is maintained of all parts of the school accessible to the pupils and of playgrounds, and that a responsible person is available in case of emergency. In making such arrangements, however, an authority is not undertaking any new liability. Children are subject to the common risks of life wherever they may be. It would be manifestly impracticable to prevent altogether the occurrence of accidents during play, and ridiculous as well as undesirable to attempt supervision with that end in view. In small rural schools the question hardly arises, and the headmaster is usually close at hand. In many other schools a good janitor is all that is required, provided that he like other persons exercising supervision has an elementary knowledge of first aid and ready access to the emergency outfit which all schools are required to possess. In such schools it is essential that the janitor should be freed from all other duties during this period and that his lunch hour should be taken while the school is in session. In many large schools, however, it may be found that the janitorial service is inadequate for the purpose, and in such cases arrangements should be made for an increase of staff, possibly by the addition of a woman assistant janitor.

If a wider view is being taken of school building requirements to meet new educational needs, we must also take a wider view of school staffing. In many of our larger schools there is an infant mistress not in charge of a class, and in many others there might also be senior woman assistant not on full-time teaching duty; these could be called upon to exercise supervision as a part of their stated duties, but without encroachment on their own lunch period. Alternatively, these might relieve for a period daily another member of the staff who is undertaking supervision; or such periods might be provided through the visits of a specialist teacher. To some schools, particularly in difficult areas, it may be found desirable to appoint to the school a trained social worker whose duties - among many others - might include help with meals and playground supervision. However the problem may be solved, we wish to state emphatically that members of a teaching staff cannot be expected to undertake playground supervision during their lunch period and begin classroom activities immediately thereafter.

We are aware that there is a wide disparity of feeling and practice among Scottish teachers about what they are able and willing and called upon to do in connection with meals and supervision. Some, particularly in small rural schools are doing far more, and will continue to do far more, for the sake of the children, than could ever be officially enjoined. There are others, particularly among older teachers - and for these we can have a good deal of sympathy - who have considerable difficulty in adjusting themselves to the new conditions. In such cases the headmaster should so distribute the non-teaching duties of his staff that an equal share of responsibilities is borne by each member.

We have already made clear our view that it is a mark of the professional status of teachers that their duties are not defined for

them in detail but are fulfilled in satisfaction of their own professional conscience; and we would express our strong hope and desire that professional duties arising in connection with school meals should continue to be so performed.

(4) SCHOOL SAVINGS

The working of a school savings scheme is on a different footing from the milk and meals services. It has from the beginning been a voluntary movement. While it has been encouraged by most authorities, we have no evidence that improper pressure has been applied. Widely adopted during the 1914-18 war, it was continued by some schools and

*Not reproduced in this Appendix.

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discontinued by others in the period between the wars, again expanded during the 1939-45 war, and still being generally continued, though hardly on a war-time scale. A movement such as the Savings Movement, with Government support and full-time officers, can usually state good reasons for perpetuating itself. We must therefore examine its position in the school on the footing that it promises - or threatens - to become permanent.

When in a period of war emergency money is plentiful and consumer goods are in short supply, it is clearly desirable in the national interest that the public should be induced by every reasonable means to spend less and save more. The real "war savings" are not effected by book-keeping entries of large sums but by the conscious decision of multitudes of ordinary people to refrain from spending money lavishly and to entrust the money thus saved to the state. Such a policy not only tends to prevent inflation but gives the Government in times of crisis readily available financial assets. While some may believe that the schools are an all-too-obvious target for propaganda of various kinds, all would surely admit the propriety of their taking such a significant share as they have done in an important war effort. From this point of view it did not matter much whether the money brought by the children was their own small contribution or entrusted to them by their parents; and if competition between school and school or town and town was not altogether desirable, it might well be forgiven if the final result was an increase in genuine contributions. The School Savings Movement so far as these objectives are concerned, should end with the war or at least with the real emergency immediately resulting from the war.

The other reasons for a School Savings Movement is the encouragement of thrift. So far as it goes, this is an admirable object. Thrift can be taught much better to children by practising it than by talking about it. But thrift as an end in itself would produce only miserliness; it is a part of the larger virtue of economy. All young people should learn to have a prudent and far-sighted attitude to the material things of life. They should know how to plan their spending so as to live within their incomes; to refrain from thoughtless spending week by week so that they may gradually acquire purchasing power for worthy objects in the future. or secure their own economic independence in old age or days of adversity. All thrift is

thus in a sense deferred spending. But economy is much more than this. A large part of it consists in the considerate and respectful use of all the material blessings of life - care in avoiding over-purchase, in using up only what is needed for the purpose in hand, in reusing "scraps" whether of food or cloth materials, or in saving any articles that may come in handy within a reasonable time. But beyond all this, the expert in any line of activity may most easily be recognised by his economy - the craftsman in his manipulation of tools, the golfer in his swing, the literary man in his use of words.

Even then economy is a one-sided virtue. Many have lived worthy lives by "spending and being spent", and "taking no thought of the morrow". There must be room also for training in generosity and those acts of warm-hearted sacrifice which more than anything else bring individuals and peoples into a closer and more understanding relation to one another.

In view of all this we take the view that the concentration of the efforts of teachers indefinitely year after year in the routine practice of this partial and one-sided virtue of financial saving is not justified educationally. We believe it is a good thing to start the children with the habit of saving by linking them with a suitable organisation; but that other means should be found for continuing routine transactions that do not encroach upon the precious school time of the pupil or the limited energies of the teacher.

If, however, class teachers are anxious to continue the Savings Movement with their pupils, it should be on a really voluntary basis: that is, it should not take place during a period allocated to any subject, and particularly not during the religious instruction period; it should be during a short timetabled period specially allocated in addition to the ordinary class hours. Indeed it seems reasonable that all extra-instructional activities should be dealt with in this fashion and the school day adjusted accordingly. As regards savings, however, it seems preferable as a permanent solution that where the school is to be specially associated with detailed transactions, representatives of the savings banks should attend for the purpose.

The argument that transactions occupy only a few minutes of a class time raises another issue. These minutes are concentrated, and few teachers find it easy to maintain such concentration for a whole day. Further, and even more important, it is the duty of the authority and of the headmaster to protect the teacher and the pupil as far as possible from distractions and interruptions of every kind whatever. A good headmaster will not without serious purpose enter a classroom during the progress of a lesson, nor encourage frequent knockings at doors or unnecessary movements about the school. The class teacher has the right to reasonable privacy and continuity and to expect the co-operation of the headmaster to this end. There are many good causes for which excellent people

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and organisations would like school time to be used. The final result would be dictation of the school curriculum from outside instead of from inside the school. In the light of such considerations we take the view that the Savings Movement, apart from times of real emergency,

where it is carried on, should have only a limited place in the school, and that it should not on any consideration interfere with the curriculum of the pupils as shown on the approved timetable.

The teaching staff should not spend school time in counting money, in minor book-keeping transactions or in purchasing savings stamps. When these things are done at all they should be done outside of school hours or at least by a clerical assistant. The strictly professional duties of teachers are so important and insistent as to require their time and energy for the whole of the school day.

(5) VOLUNTARY SERVICE BY TEACHERS

We should conclude this section on a wrong note and give an unbalanced view if we did not make it clear that the voluntary services undertaken by many teachers far exceed in variety and time spent the duties specially mentioned above. We refer not only to the many hours of preparation for public performance of plays and music and dancing, but to the amount of help, far out of proportion to that in any other profession, given to voluntary organisations for the benefit of children and young people. All this is very exacting work, and has little reward except in the doing of it; but there could be no better indication that the teaching staffs of our schools do not spare themselves in placing their professional gifts and training at the service of the community.

III

EXPERIMENT AND RESEARCH

If all educational problems had been completely solved and children completely standardised, experiment would be a waste of time and research an antiquarian hobby. But as social needs and ideals change, education must also go on changing and developing. Experiment and research, by which alone such development may be brought about in a fruitful and comprehensive way, must continue to be a vital element in any system of education. They are amply justified even on financial grounds: misdirected effort and out of date methods are just as wasteful in education as in industry. A generation that has achieved under stress of war staggering practical results from scientific research of the severest academic type is not likely to be unsympathetic to educational research if it appears likely in the long run to produce results of comparable significance.

Members of education committees, and indeed some teachers, have been known to complain that certain of the publications of the Scottish Council for Research in Education are unintelligible to them. But in so complaining they show a misunderstanding of the whole nature of research. The reason for its being apparently unintelligible is that the results must be stated in such a form and in such accepted terms as to make them capable of being scientifically considered by experts who can judge the validity of the results. Research in any field must have a scientific procedure and a vocabulary - or jargon - convenient for its purpose. There is, however, no reason why the results of research should not for convenience be presented in an epitomised form for practical use. We have already commended the policy recently inaugurated by the Scottish Council for Research in Education of providing the great body of Scottish teachers with brief

and clearly-stated summaries of the main conclusions of researches already undertaken and published.

Speculation must be free, and investigation must be disinterested; but from any such investigation the result obtained may be negative, there may emerge nothing of any practical value, or a practical result may come almost incidentally as a by-product. There is not a new germ under every microscope or an El Dorado at the end of every voyage. Nevertheless the greatest practical achievements may follow from the most profound and disinterested speculation. It is, on the other hand, not unreasonable that researches and experiments assisted from public educational funds should show some prospect of the discovery and promulgation of new facts, ideas and techniques that will sooner or later, and in some form or other, be of educational benefit to children in school.

Scotland is indeed fortunate in possessing a Council for Research in Education broad enough in constitution and purpose to be a fit instrument for performing the functions we have in view. If up till now their activities, as they themselves confess, have been in a sense sporadic, they may with justification plead that they have been able to work only under serious limitations of finance and personnel. We recommend that both the Secretary of State and education authorities take full advantage of the powers conferred on them by the 1945 Act and of the Regulations recently made to put the Research Council into a financial position commensurate with its functions.

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Valid subjects of research cover a wide field. Where these deal with the history of education, they should not have for their object the mere accumulation of facts, but should give a broad progressive picture showing general purposes and tendencies, whether fruitful or mistaken, as an inspiration or a warning to the present generation. Such historical studies are useful also in correcting exaggerated and sentimental notions about the virtues of Scottish education in the "good old days".

Much research remains to be done into the planning and equipment of schools, which are by no means the exclusive province of the architect and tradesman. In all researches of this type it is necessary to keep in view the permanent and changing functions of the school and therefore to consult those most competent to advise in such matters.

The main subjects of research must always be those connected with the child, with the content of the curriculum and with teaching techniques; and of considerable importance in addition to these, the social factors affecting educational policy. The number and variety of such problems, and the urgency of many of them, are so widely known to all who are familiar with Scottish education today that we do not think it necessary to specify them further.

As the recognised organ of research in Scotland, the Research Council should have a permanent full-time general staff with the principal duties of inspiring research, directing it into the most profitable channels, maintaining high scientific standards and co-

ordinating the work of individual researchers. They should arrange that all who are undertaking worthwhile and approved enquiries should have the wholehearted co-operation of officials and school staffs. They might also maintain a roll or associate membership of teachers all over the country who have declared their interest in research and willingness to give a help as required.

A good deal of the work of the Research Council must continue to be arranging for the publication of the results of research. We recommend that, as soon as funds and staff allow, they publish a bulletin, annually or oftener, giving a very brief account of publications issued elsewhere and the conclusions therein stated.

On the other hand, teachers, H.M. Inspectors and directors of education owe to the Research Council the duty of creating a bridge wide and strong enough to carry their work right over into the classroom.

All educational experiments are a form of research. They may be of all sizes and at all levels. There may be some of such small dimensions and for such immediate purposes that they can be carried out by one teacher without reference to any other. These, however, must be distinguished from wider experiments, involving a whole school, an education area or the entire country, carried out under carefully controlled conditions and with recognised techniques which might be expected to yield results worthy of publication and general adoption.

While we strongly favour experiment, and believe indeed that it is the life-blood of any progressive educational system, we believe also that no experiment should be undertaken lightly, especially in relation to adequate control. Any proposal should be carefully thought out and planned beforehand. The co-operation of all affected should if possible be secured. Consultation should take place with the Research Council to get information about any previous experiments of the kind and to prevent unnecessary duplication of effort. In all cases a frank and objective report should be prepared indicating object and procedure, and relative success or failure.

While in the scientific sense the majority of teachers may not be researchers, all must be experimenters. The relationship of a teacher with a class and with the individuals composing it, her methods of class organisation and her presentation of subject matter are not static facts that can be completely predetermined, but are subject to experimental trial and error to such a degree that the good teacher never ceases to experiment to the end of her teaching days.

Where experiments of a major kind are being taken in hand, and traditional procedures are being radically altered, it is of the utmost importance that the co-operation of parents should be secured or that the experiment should be confined to those children whose parents voluntarily enrol them for the purpose.

While in many cases experiments may be carried out by education authorities or groups of authorities, occasion may arise for trying out some scheme that authorities may hesitate to include in their normal educational provision. As an example of such a scheme we refer to the promising experiment at present being made by several authorities

of providing residential school experience for some of their pupils in the five hostels managed by the

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Scottish Special Housing Association. For the purpose of facilitating experiments of this kind we recommend that the Secretary of State should exercise his power to give direct financial support for an agreed period to any responsible educational experiment that appears to give promise of results that would be of benefit to Scottish education generally; and that authorities be encouraged to second any of their teachers selected to carry out the experiment.

IV

TRANSFER OF PUPILS FROM PRIMARY TO SECONDARY EDUCATION

1. General

While we are aware that the word "promotion" is used in section 21(1) of the Education (Scotland) Act, 1945, and must accordingly continue meantime to be used in official documents, we recommend that the word "transfer" be the one generally used. "Promotion" is accurate enough in the literal sense of "moving forward", but it also conveys the inappropriate idea of the selection of the few from among the many for higher tasks and superior rank. The word "qualifying" might well also be discarded, as carrying with it the notion of success or failure, which should not arise at this stage. The word "control" describes very well any standardising technique that may be introduced, but has so many other varieties of meaning and emotional associations that it should be dropped.

The transfer arrangements, taken all together, should not presume to make a final decision about the educational future of every pupil, but should rather be a preliminary sorting to direct pupils along a variety of trunk roads with easy connecting links at the earlier stages.

The objects of this sorting or scattering are (1) to guide each pupil into a course suitable to his interests and aptitudes, and (2) to form in the secondary school groups of reasonable size and homogeneity for administrative and teaching purposes. These two objects are by no means incompatible, but (2) should as far as practicable be determined by (1).

This transfer usually involves a change of school, a parting with at least some companions and forming new relationships, a greater variety of teachers, becoming again "infants" in a new setting instead of members of a top class, an introduction to new subjects and teaching methods and exacting home tasks. These are heavy demands on any child, and nothing in the transfer arrangements themselves should increase the strain of the changeover or produce in the child a feeling of crisis.

This strain may be alleviated if a wider view is taken of the whole educational process. The primary school and the secondary school should become much more familiar with each other's purposes and practices, and we recommend that steps to this end be taken in every

secondary school area. The transfer arrangements should never be a matter suddenly arising to cause special excitement in the final year of the primary school, but deliberately and increasingly envisaged during the whole primary period. Every teacher who has had charge of a child for a year or more should be expected to make her contribution in one form or another to the final estimate. Tests or examinations should be taken by the pupils in their stride, and should not be the subject of special preparation - which may indeed help to defeat their whole purpose. As regards the secondary school itself, we need only refer to the conclusion reached in our Report on Secondary Education that, while a common first year is wasteful and unpractical, steps should be taken by reducing the variety of subjects and the number of separate teachers in that year to lessen the shock of transfer. We would in conclusion point out that the decision reached at the transfer period is by no means final, and that wide powers of transfer and modification of courses remain in the hands of the secondary headmaster.

2. Factors influencing choice of Course

The factors which rightly or wrongly influence the choice of school or course may be listed as follows:

- (1) The wishes of the child - including prejudices and personal ambitions;
- (2) the prejudices of his contemporaries;
- (3) the wishes of the parents;
- (4) social environment;
- (5) availability of accommodation;
- (6) prestige of schools and courses;
- (7) relative accessibility of secondary schools;

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- (8) award of bursaries;
- (9) the views of the primary staff concerned;
- (10) mental capacity;
- (11) practical ability;
- (12) attainments;
- (13) aptitudes.

It is in practice sometimes difficult to disentangle (1), (2) and (3) because of the wide variation in parent-child relationships, from complete acquiescence by the child in the parents' ambitions to the complete domination of the parent by the child. The desire of a child to follow a course well below his capacity, merely because some of his companions are taking it, should not as a rule be granted; a choice based on such a fleeting circumstance may well be regretted in later years by the child himself. The great majority of parents have by this time a fair idea of their children's capacities. A few underestimate them, and others are too optimistic. We would wish, however, to lay great stress on the opinion of the parent who is intelligently interested and prepared to state his views clearly. We would emphasise that the really "difficult" parents are those who are not interested in any aspect of the education of their children except the "leaving date". At this transfer stage we are fundamentally dealing not with figures and percentages but with the fates of human beings. There should

therefore be personal contact with the parent, who is normally more warmly interested in the child than anyone else. An interview is important for many reasons: for one among others, that the parent is often right in his ambition but wrong in his procedure. To the parent it may, for example, seem obvious that the best way for his boy to become a lawyer is to enter an office at the age of 15; but the schoolmaster might well ask him to consider whether this is the most desirable method of achieving his purpose. We believe that a considerable percentage of the national waste due to the under-development of natural talents could be avoided by contacts at this stage between parents and teachers. From the parent the teacher will learn much about the home environment and leisure occupations of the child, and the teacher will be able to tell the parent about the child's capacities and the opportunities open to him.

The percentage of pupils from a poor or overcrowded district taking full advantage of educational facilities is notoriously smaller than from a prosperous and well-housed district. The solution of the housing and other social problems involved is a political matter. Those interested in education may, however, point out that here again is a waste of natural talent that the nation can ill afford.

It is a situation not to be tolerated that the course chosen for a child should in any way whatever be influenced by the school accommodation available. It is the plain and urgent duty of education authorities to ensure that no child should have his reasonable ambitions thwarted or circumscribed.

We unreservedly condemn all competitive examinations at this stage, and recommend that where they exist they should be abolished. They introduce a wrong spirit into the primary school; they place school against school and teacher against teacher; they vitiate the curriculum through the imposition of demands, often on far too high a level, from outside sources; and they impose a harmful strain on both pupils and teachers. But more than that: they depend on two assumptions that are foreign to the spirit of the 1918 and 1945 Acts. If they are competitions for places, there is a clear suggestion that admission to certain courses in a secondary school is limited by the accommodation provided rather than by consideration of the needs of the individual pupils; if they are competitions for money grants, whether from endowments or public funds, they are or should be superfluous in view of the duty laid upon authorities to see that no child is prevented by financial circumstances from getting the full secondary education from which he is able to profit. We suggest that if such money grants must be given at this stage they be distributed by methods other than competitive examination. Better still, application should be made for the diversion of educational endowments to desirable educational purposes not fully covered by the duties of the education authorities.

Parents may desire that their children should be enrolled at a particular secondary school not merely for the intrinsic value of the education given but also for the standing and prestige of the school, which may be regarded as giving an advantage in personal contacts or future employment. It may, however, be said that on the whole Scottish secondary education is democratic and sturdy enough to resist any widespread growth of this tendency; that while this may give a temporary advantage to a few mediocre people, real talent is

discovered and developed pretty evenly in all Scottish secondary schools, large and small, rural and urban; and that the real remedy, though a slow one, is to be found not in depressing the status of schools with ancient prestige and traditions but in encouraging others to develop their own prestige and standards along lines of their own natural development.

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Secondary education has in the past been denied to a certain number of children because their homes are at a considerable distance from the nearest secondary school. It is not uncommon even yet in remote rural areas to find pupils from 12 to 14 retained in a small primary school without any provision whatever for their secondary education. Parents on the whole take a sensible view of the position when their children are obviously well adapted for a course in a senior secondary school. But they have on the whole shown less keenness to agree to the transfer to a more distant school if the children will be leaving at 14. There was, of course, something to be said in favour of this attitude. The children in question were less ambitious than their more academic colleagues, and so less anxious to leave home. Their parents looked forward to their help with croft or hirsle [flock of sheep] or home duties, or to their taking a job in the family tradition. There was a fear of the alien atmosphere of the town, and perhaps a poor opinion of any benefit that could be got by further schooling. On the other hand, education authorities have always tended to give secondary bursaries much more freely to gifted children; and they have not always provided suitable courses at accessible centres for the less gifted. The 1945 Act, however, contains new provisions which change the situation materially: a three-year course, or something near it, for all; free travel facilities; power to insist on transfer to a secondary school; school meals; hostels; and a broader outlook on the education of all young people up to the age of 18. The transfer arrangements should accordingly take account of the new situation. The creaming of a limited number for an academic course must give way to a careful assessment of the qualities and possibilities of each individual.

The other factors listed are of a more objective type - the considered opinion of the primary school, mental capacity, attainments and aptitudes. These all depend, however, on the policy to be followed regarding age of transfer. Our views on this subject are reinforced by the practically unanimous testimony of our witnesses. As indicated at the beginning of our Report, we retain age 12 as a general guide. We believe that the method of the "clean cut", ruthlessly carried out, is too rigid and arbitrary to fit the large variety of human and administrative situations. At the same time this policy has helped to draw attention to two important facts: (1) that it is impossible either as an ideal or in working practice to bring all children up to any given standard; and (2) that every child has a right to the kind of experience that we call secondary education. On the other hand, we do not recommend transfer by the mere reaching of a set standard irrespective of age. Great harm may be done to a physically immature child by pushing him forward solely on the basis of his mental precocity. Similar harm may be done by retaining a physically mature child among younger children merely because he is unable to make the same progress as his contemporaries in tasks which become

increasingly distasteful and humiliating. We believe that the primary education of the most gifted children should be so spaced that they do not reach the transfer stage till the 11 to 11½ period, and that broadly speaking the maximum age of transfer should be in the 12 to 12½ period. A misleading notion to which the "clean cut" idea may give rise is that the primary stage is confessed as a failure by the sudden elevation to secondary status of backward pupils from Primary IV, III, or even lower. But these pupils do not appear for the first time at the transfer stage; they have been known for years in the primary school. They should be recognised and dealt with as soon as possible in suitable groups or classes, not in a vain attempt at the unattainable but with an eye on their most profitable scholastic career right from age 7 till the leaving date. Though very weak in most subjects, they are probably at their best, and can always get the most useful experiences, in the company of their contemporaries. It by no means follows that they should be transferred late: they should be gently led from a simplified course in the primary school to a similar and consecutive course in the secondary school. Late transfer may on the other hand be justified by retardation through illness or other reasons, or simply by late development.

All schemes of objective judgment about the assessment of children at age 12 have, of course, certain limitations, and we desire to draw attention to three of these.

(1) Testing is not education. A pupil may be tested frequently without having a good education, and many people have been well educated who never sat an examination. All tests are at least interruptions, and must justify in some way the time spent on them (not to speak of the time spent in preparing for them). In connection with transfer arrangements they are justified if they give valuable information, not otherwise obtainable, about the secondary course best fitted for each child. The time taken by any ideal system of testing, while not seriously encroaching on the child's time, may in fact be prohibitive in relation to the time required by a specially skilled tester. In all schemes, therefore, the time needed must be balanced against the relative accuracy of the result and the supply of qualified personnel.

(2) It is necessary to guard against the over-simplification which may follow from too hasty inferences from statistical material. It is a formidable enterprise to try to evaluate in terms of the arithmetical series, which is the simplest of all

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general ideas, the relative values of human personalities, which are the subtlest things known to us in the universe. Numerical value and order should therefore be limited in interpretation to the particular information strictly discoverable from the test. and then only with an ever-present awareness of human fallibility.

(3) The best conceivable tests in the best possible conditions will not be 100 per cent reliable. Being prognostic in their nature, they cannot possibly take account of personal and social developments that are as yet beneath the horizon. All we can say is that with improvement and elaboration of technique there is a progressive reduction in the margin of error.

The views of the primary teachers concerned should be of great help in deciding the best secondary course for each child. They are the only experts who can give a verdict based on long experience, anything else being of the nature of a "snap" or "sample" judgment. But certain conditions must be fulfilled if their verdict is to be of high reliability. They must have been consciously studying each child with this purpose in view, and not merely compiling marks; they must be well informed about the standard and content of the secondary courses; and at least one of them should if possible be able to speak with two recent years' experience of the child's development. Indeed one of the most important continuing purposes of the school, primary as well as secondary, is the formation of a judgment about the "career" of each child: at first in a very broad sense, but gradually acquiring more definition and direction, and so enabling the child's education to be fitted to his interests and capacities.

So far as mark lists and numerical class order are concerned, and also the relative strength and weakness in different subjects, it has been found by experience that class teachers on the whole make a good objective judgment. They find it difficult, however, to attach that judgment to an absolute or external standard, whether as regards the meaning of any given percentage or range between the highest and lowest marks. Some means of standardising judgment is accordingly required which will give a common basis within a secondary school area or a county and a reasonable similarity throughout Scotland.

3. Intelligence Tests

One valuable help is the intelligence test. The special usefulness of a test of this kind depends on the fact that it gives a measure of the child's innate mental ability as distinct from his school attainment. The technique of intelligence testing is well past the experimental stage: there exists a supply of standardised tests which is sufficient for present purposes and is always increasing in variety and accuracy. It is true that intelligence cannot be tested in the void. Printed matter, pencil and paper are involved, and therefore the capacity to read, if not to write, must be assumed. But the demands made are so simple as not to vitiate the result in the case of children who have had the normal amount of school instruction for their age. The finding of an intelligence quotient gives for each child a figure denoting his intelligence on an objective and universally understood standard.

At this point it is necessary to distinguish between the so-called group tests and individual tests. In both cases the child performs the test individually, and an individual intelligence quotient can be obtained. The group test, however, can be carried out simultaneously by a group of pupils receiving identical directions from the person giving the test; while the individual test requires that the tester should give undivided attention to one pupil at a time. The degree of accuracy is greater in the individual test, but on the other hand it takes a much

longer time to perform for a whole class, and demands more experience and training on the part of the tester. Though it may be applied universally at an earlier stage in the primary school, the use of the individual test will therefore at the transfer stage be limited meantime to cases where doubt arises.

The average of two intelligence tests shows a more accurate result than a single test. If one of these be given at the transfer stage, the other might be given at least a year earlier. Such an arrangement would provide valuable guidance to the teacher in planning the work of the transfer class.

Usually these two group tests together with all the other information available should provide sufficient data for deciding on the secondary course suitable for each child. Where however serious discrepancies arise, as for example between the one intelligence test and the other, or between the intelligence tests and the teacher's considered opinion, it may be advisable to test a number of pupils individually.

The whole value of the tests depends on the attitude and the efficiency of the person who administers them. The attitude must be rigidly objective and scientific, free from conscious or unconscious emotional bias. The class teacher will therefore usually prefer

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that the test be given by someone who has no close personal acquaintance with the pupils. The other essential is that the printed instructions be carried out meticulously and timing rigidly adhered to. It may therefore be considered advisable that two persons should be present when the group test is being administered. It is in any case necessary that the marking and calculations should be done by one person and checked by another. As the whole object of the test is to find out the natural capacity of the child, there is clearly no ground for imagining that the results, whatever they are, can possibly reflect credit or discredit either on their present or their former teachers.

The question arises whether there is a sufficient supply of teachers in all our schools capable of administering these tests. It is important to understand the purpose and technique of testing: it is even more important to have practice in giving the tests and assessing the results. For over ten years students have been made acquainted with intelligence testing as an ordinary part of their training college curriculum, though not many of them have been so fortunate as to have had adequate practice during their period of training; but many of the older teachers are not acquainted with the technique of testing. It is therefore clear that the supply of suitably trained persons is at present not nearly sufficient, particularly in small schools and rural areas. We therefore recommend that "Article 55" classes* be extended to all areas, and that education authorities give every possible encouragement to members of their teaching staff to attend and acquire the qualification to undertake group testing. The necessary practice may be gained if an experienced and an inexperienced person co-operate in the giving and assessment of a test.

It has been assumed above, and we think reasonably, that head teachers and class teachers with the training suggested could safely be

entrusted with the administration of group tests. Individual testing is however a different matter. It is not to be expected that even every large school will have on its staff a teacher trained and competent for the purpose. We take the view that the giving of individual tests is the province of the trained psychologist, or of the teacher with the Diploma in Education or the B.Ed. degree who has specialised in the subject. We therefore recommend that authorities should ensure that they have on their staffs a sufficient number of fully qualified specialists. They will require to face the fact that individual testing is a slow business and cannot be carried out by a teacher responsible for full-time class teaching; but they should realise that one hour's attention by a specialist might in certain cases obviate misdirection at the transfer stage.

4. Attainments Tests

If it be granted that there is available a satisfactory technique for ascertaining a child's natural capacity, there is still required an answer to at least one other question: How shall his stage in advancement in school subjects be tested? And within that there is another question: What subjects are the most essential and the most convenient for testing? The reply that most readily comes to the mind is to have a common standardising examination for the whole area in all the examinable subjects of the primary school curriculum. This policy was however found in practice to raise several difficulties. Though purporting to be only a test, it implicitly imposed a syllabus on all the schools, particularly in subjects like history and geography. It encouraged the cramming of factual information and so gave a wrong bias to teaching. It fettered the initiative of teachers and caused strain both to them and to pupils. It led to the neglect of the unexamined but culturally important subjects like music and art. It even led to a suspicion that the comparative merits of different schools and staffs were being judged by authorities in accordance with the average mark attained. Perhaps the greatest practical difficulty of all, however, particularly in large areas, was to evolve and maintain an efficient standardised scheme of marking.

These difficulties were widely if slowly recognised. Changes were made in two directions. Subjects other than English and Arithmetic were dropped, and the papers were set in such a way that special coaching was made more difficult. The main constituents of the English papers in many areas are now a series of simple questions to test the comprehension of a given passage of straightforward prose, and a list of subjects on one or more of which the pupils are asked to write paragraphs.

These tendencies towards the improvement of the control or qualifying test have been considerably influenced by the building up during the same period of a standardising technique on the same principle as the intelligence test. These scholastic or attainments tests have not reached the same stage of maturity as the intelligence tests. There has

*Article 55 of the Regulations for the Training of Teachers provides for courses for teachers in actual service.

however been considerable development in recent years as regards both quantity and reliability of the test material available, and the supply could be made adequate for all reasonable needs. The characteristic virtue of the attainments test is that the type of answer demanded and the method of scoring are so simple and straightforward that they practically eliminate the personal factor in assessment. The limitation in the value of the attainments test is that it does not test sustained thinking or the capacity to marshal ideas or facts from different sources. Admittedly these qualities can best be tested at this stage by a composition or paragraph showing consecutive thought or the development of an idea. But the problem of standardising the marking of such a composition, particularly when the number of scripts is very large, is one for which it is not easy to find a satisfactory solution.

5. Aptitude Tests

It may not have escaped notice that both intelligence and attainments tests are "literary" in the sense that they both involve direct transfer of ideas between the mind and a sheet of paper. A child may well have, and often has, certain aptitudes that cannot satisfactorily be tested in this way. Aptitude has been well defined by one of our witnesses as "intrinsic mental and physical dispositional fitness to undertake a certain activity". If the existence of special aptitudes at the pre-adolescent stage could be definitely established they would undoubtedly be of great help in placing in suitable courses pupils with limited capacity for literary expression. We have been informed that while there is no practical or theoretical difficulty in the devising of group tests for this purpose, the amount of research work done in this direction has been very limited, and it may be a long time before appropriate and properly standardised tests could be devised. but such research should be immediately and actively undertaken.

While we are therefore not in a position to make any recommendation about the testing of aptitudes, we hold that this is a factor in determining the future course of a child that should be now fully considered. If, as already recommended in this Report, a greater variety of handwork is introduced into the primary school and more initiative allowed to the pupil, the teaching staff will have more opportunity than at present of observing the special interests and aptitudes of individual pupils. Closer contact with the home and the opportunity for voluntary homework which we have also recommended, should enable the teacher to get information about the hobbies of the pupils and the way they spend their leisure time out of school. We suggest that the teacher might record impressions of aptitude on a five-point scale from A to E in respect of all the secondary courses available, adding a special note on exceptional cases.

6. Recommendations

We do not regard it as either advisable or necessary that we should draw up a detailed scheme of transfer procedure. Our general recommendations are as follows:

- (1) That the whole procedure be devised and used for no other purposes than those laid down in section 21 of the Act of 1945. viz., for enabling an opinion to be formed as to the courses from which

each pupil shows reasonable promise of profiting and a decision to be made, after taking into account the wishes of the parent, as to the course to which the pupil is to be admitted.

(2) That in the making of the transfer scheme education committees should be required to consult representatives of the teachers in the area.

(3) That a transfer board be constituted with full powers to administer the scheme and make decisions in accordance therewith, as distinct from the framing of the statutory scheme, and that it should consist of the director of education, representatives of the headmasters and staffs of the primary and secondary schools and representatives of the education committee, with H.M. Inspector for the district as assessor; provided that the representation of the education committee should not exceed one-third of the whole membership.

(4) That two intelligence tests be taken, one preferably a year to eighteen months before the transfer stage; and that the second test should be applied to all the pupils of the transfer year plus any others whose transfer is being considered on account of age.

(5) That provision be made for obtaining the opinion of the primary school about (a) the attainments, (b) the aptitudes and (c) the personal qualities and home conditions of the child.

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(6) That the pupils should take standardised attainments tests In English and Arithmetic; or alternatively a common examination for the area in those subjects requiring mainly the same type of answer as the attainments test. The teacher's estimate of attainment in English and Arithmetic should be properly scaled so that the standard from school to school may be comparable.

(7) That the final mark of each pupil be found by taking the average of intelligence test, attainments test and teacher's scaled estimate. This will be the main basis for transfer subject to consideration of aptitude and other personal factors.

(8) On the basis of this evidence the parent should be informed of the courses from which the child shows reasonable promise of profiting and his wishes should be ascertained. The expressed views of the parent should in accordance with the general principle laid down in section 20 of the Education (Scotland) Act, 1945, be taken into account before a final decision is reached. In all cases of real difficulty interviews with parents should be encouraged.

(9) In cases of doubt as between two courses the pupil should generally be given the option of taking the longer or more onerous course, at least for a probationary period. After lists of pupils for transfer have been submitted from the primary school there should be provision for free and direct consultation at any time about any pupil between receiving and sending schools.

(10) Techniques have been devised as a result of an enquiry on selection for secondary education conducted by the Scottish Council for Research in Education* to determine the rough limits that may be

used for the separation of the pupils fit for different forms of secondary education, and it is recommended that use be made of these techniques. Borderlines between groups should be adjusted in the light of experience of the working of the transfer scheme.

*"Selection for Secondary Education" by William McClelland (University of London Press.) (It is understood that a summary of this volume is in course of preparation.)

