## Middle Schools

## University of Exeter Institute of Education

Themes in Education no. 14
Conference Report

## MIDDLE SCHOOLS

## Report of a conference arranged by Dorset Education Authority in collaboration with Exeter University Institute of Education, lst-5th Aprils 1968

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This conference was conceived and planned largely by Mr. R.B. Crookall, Administrative Officer for Secondary Education, Dorset L.E.A. Much of the credit for its success is his. This acknowledgement in no way detracts from the importance of the contribution of the lecturers, advisers and office staff to whom our thanks are due.

This is a conference report and like all conference reports gives the impression of "being rather overcrowded with lectures. I think it is important in this foreword to correct this impression. Certainly in the first part of the week a number of very good lectures were given by people who had something apposite to say relating to the theme of the course. We are grateful to them for allowing us to reproduce the main points of their talks.

However, the second part of the week was much more of a working session - very expertly introduced by Miss S.M.C. Duncans H.M.I. During this time the 70 teachers and head teachers in residence worked in groups of four or five producing, often in diagrammatic form plans for middle schools - not plans in an architectural sense but in a policy sense. These plans ware based on an existing, development scheme in Dorset. The results were quite astounding. It is a great pity that the work of the teachers cannot be represented in this booklet. The reason for this is that the colour coding which had to be used made their reproduction on a large scale too expensive. Colour slides have been taken which can be obtained on loan from Dorset Education Committee. Dorset also possesses ten conference reports which include an appendix diagrammatically representing one of the schemes that was drawn up.

J, Waltong Senior Staff Tutor, Institute of Education, University of Exater.

Mr, H. L. Williams Research Officer, N. F. E. R.
Introductory Remarks
The study of physical growth involves a number of disciplines such as physiology^ psychology and statistics. Two kinds of study have been carried out, the Gross Sectional Study and the less familiar Longitudinal Study. These could be defined as follows:-

Cross Sectional Studies - Measure the standards or performance of people within a particular group at a given time.
Longitudinal Studies - measure the standards or performance of individuals from a group over a period of time and involve observations at regular intervals.

There has not been a long term study of all-round educational growth in this country although one is being carried out in the U.S.A., from which data are becoming available, and there is also one in Sweden. The difficulties encountered in a long term study were expense and the drop out of members of the samples.

The earliest longitudinal study in this country took place in Scotland in 1932 when all 10-year-old children were given intelligence tests on the same day, and some of these were followed into adult life. Similar surveys with small representative groups were carried out in 1946 and 1958 in connection with the Welfare Services.

## Physical Growth and Development

Some aspects of growth and development which have been studied are:-
a) The relationships between physical change and the development of mental and social traits.
b) The Body Image - how a person sees himself at different ages - and its importance in connection with early and late physical maturity in boys and girls.
c) Physical Growth used as a model for the study of other facets of development. This is currently receiving considerable attention.

The Prediction of Height and Maturity
A rough and ready method recommended in a recent American $T . V$. programme (by "the electronic Dr. Spook") is to double the height at

2 years for boys and at 18 months for girls. More accurate predictions involve using the skeletal or bone age (the latter most conveniently determined by means of a wrist X-ray) or a combination of the height of both parents with certain measurements of the child's growth. The parent-child correlation for height is about . 5 (l.O would signify perfect correlation). The later the age the measurement is taken the bigger is its correlation with height at maturity; in the case of girls, for example, the correlation for height between ages 7 and 16 is 0.8 , between 14 and 16 greater than 0.9. An improvement in the correlation is to be expected as the interval between the ages narrows. Correlations tend to be lowest for those years in which gains in maximum height are greatest: age 2 for both boys and girls, 11 and 12 for girls 5 13 and 14 for boys. Between conception and age $344 \%$ of mature height is attained; between 3 and 12, $32 \$ 5$ and from 12 to 18, the remaining Thus it is during the first three years of life, the period of greatest growth, that the most serious consequences result both physically and mentally.

An admirable article on physical growth is to be found in Scientific American for January 1968 written by Professor Tanner of London University, an international authority on the subject.

## Development of Intelligence

The stability of measured intelligence, a developing function, increases with age. I.Q, test results for children, despite wide individual variations, become relatively stable after the age of 8 . Up to the age of $4,50 \%$ of intelligence has been acquired, from 4 to 8 a further $30 \%$ is added, with only $20 \%$ remaining to be cultivated. This indicates that for a child who is slow to read, the chances on average become less with advancing years. The effect of the environment is greatest in the earlier, more rapid period of development.

Educational Attainment
In terms of vocabulary and reading ability from 4 to 6 years and from 6 to 9 years $17 \%$ of attainment was acquired in both age ranges. These appear to be the crucial periods for the development of learning patterns.

Features of Physical Growth
Education must be according to "age, ability, and aptitude". It is difficult to decide what exactly is meant by "age". The Bone Age, representing physical age, has already been mentioned, but in this context Developmental Age is more important, and useful information may be provided by the following study of Features of Physical Growth.
(i) Regular Growth Patterns

The regularity of some growth patterns are well known such as the appearance of facial hair in pubescent boys.
(ii) Critical Growth Periods

It is not known for certain whether human beings undergo critical growth periods as do animals. Possibly the effects of German Measles in the mother, on an unborn child, is one example and the psychological effect of separating a child at a certain age, from its mother, is another.
(iii) The Growth Spurt

This occurs in girls between the ages of $10 \frac{1}{2}$ and 13 and in boys from $12 \frac{1}{2}$ to 15 . Up to the age of about $12 \frac{1}{2}$, boys are bigger than girls by $1-3 \%$, girls then become bigger up to the age of about 15 when boys again become bigger, eventually by about
(iv) Maturing of Girls

The onset of puberty in girls has shown much variation over the years. Juliet was apparently mature at 14 whereas in Scandinavia in 1830 the average age was 17 years. In this country the average age is now 13 years and the trend is for maturation to occur 4 months earlier every ten years. The variations are not due to climate but possibly to race and social class; it occurs earlier in girls of families with higher living standards. The main factor, however, is probably the nutritional standard.

What effect it has, if any, on intelligence is not known although records in Scotland tend to show that early maturing girls performed better at 11+.
(v) The Organismic Age

This is the average of the Bone Age, the Height Age, the Mental Age, the Reading Age, the Teeth Age, and the Grip Age, and is being used in studies in the U.S.A.

It is now recognised that to diagnose cases of failure in schools some measure of developmental age is required. The attainment gap widens as age increases and studies of children's growth call into question the value of methods conventionally used in remedial classes for higher age groups and call for further research.

THE PSYCHOLOGICAL GROWTH OF CHIKDREN
Dr. D, H. Miller Medical Director, Tavistock Clinic
Introductory Remarks
Even with children from a stable home and neighbourhood, the age range 9 to 13 is marked by psychological stresses. Up to the age of 11 the influence on communication with otherglies largely with the parents and not the school. At about 11 a boy begins to be interested in his mother as a female and this interest may be extended to female teachers. This is in contrast to the attitude of the 9 year old who generally becomes antagonistic towards teachers. It is at this age that he begins to test himself as a young male and he competes with his peers in various ways.

The Growth Spurt in Boys
The sudden increase in size which occurs may cause confusion,, For example, it is often difficult to know the exact limits of one's body in space and there is a need to re-find it.

In boys, unintentional and unexpected sexual stimulation may occur, and they experience greater problems of control than "iris, who, whilst undergoing the onset of menstruation, will have an indication that this is about to occur.

Boys seek reassurance in the formation of gangs in which there is a continual interplay of relationships. They are not interested in a one to one relationship.

Our social structure demands that boys are less dependent than girls and therefore a boy tends to be antagonistic towards them at this age. He will seek reassurance by provoking girls and finding a scapegoat within his group. His provocative attitude will probably be directed also against parents and teachers.

For these reasons transfer at $11+$ is undesirable for it means encountering larger numbers in unfamiliar surroundings at a time when stability is important.

The Growth Spurt in Girls
At 11 to 12 , girls need the company of older men, in addition to the father, who are asexually interested in them, in order that they may develop their femininity. The importance of older male teachers is
apparent but girls may be hostile to attractive young teachers or to boys of comparable age to whom they are in fact attracted. This is because the young male may represent a threat. If older men are not available a girl may form an early sexual relationship with a boy.

Girls use their mothers as a direct feminine model. They may borrow mother's clothes and make-up whilst at the same time being highly critical of them. Boys do not have a comparable relationship with their fathers.

Girls are much more interested in a one to one relationship. At $11+$ this may be with a horse, at 13+ with a particular hero such as a pop-star. Girls use this hero-relationship to psychologically put boys in their place. It is interesting to note that at this age boys tend to have the same heroes but for a different reason - boys imitate the image which is attractive to girls.

Girls require more imaginative teaching than is possible with a curriculum dominated by examinations; and it is to be hoped that this would be found in the future Middle Schools.

Designing for the "Middle School".

Mr. and Mrs. D. L. Medd
Architects in the Department of Education and Science

1. Until there is actual experience of running middle schools, both educational and architectural discussion is merely speculative.
2. Working opportunities are enhanced or inhibited by surroundings in all schools, but middle schools will be particularly vulnerable. We are trying to create a new type of school, but most of these are likely to start life in existing premises - either primary or secondary - which already have clearly established educational processes associated with them. Any discussion on the design of new middle schools usually reveals certain conflicts between primary and secondary school "backgrounds. But this is not a "transitional" stage of education; it is unique and complete in itself.
3. It is essential for architects to be involved with the educational thinking upon which these developments are based and with first hand experience of schools in which significant developments are taking place, wherever there are children of these age groups. A schedule of accommodation is not enough.
4. The average area per cost place in both primary and secondary schools has remained more or less the same since the early 1950's. Educational developments involving an increasing range of activities have not resulted in an increase of area.
5. Of building area available, about 60\% - 64\% is likely to be useful working area. In a school for 320 pupils, for example, this will mean roughly 26 sq . ft. per pupil in an 8 12 school and 30 sq. ft. per pupil in a 9 - 13 school, as compared to 22 sq . ft. per pupil in a junior school, or 42 sq . ft. per pupil for the younger pupils in a secondary school.
6. A group of slides was shown to illustrate relationships between different ways of working and design of spaces for example (a) a large group all doing similar types of work contrasted with the same number broken up into small groups doing different kinds of work\} (b)the dispersal of special equipment for use by a few people at a time contrasted with concentration of special equipment for use by a large number at the same time in a "specialist" room, , There is probably no case for the formal specialised subject room in the middle school where one expects to see an emphasis on individual and small group work.
7. Variety in ways in which children work and in which teachers cooperate together has intensified problem of design. Some plans were shown illustrating some effects in planning:
a) when teachers work with 40 pupils in a space of their own
b) when two teachers together are responsible for 80 pupils
c) when a partnership of three teachers together are responsible for 120 pupils.
8. Different approaches to the organisation and planning of a 9 - 13 school for 420 pupils were discussed and illustrated. One example showed all the available working area (except for one large space) deployed as separate multi-use rooms for 359 v/ith a 'specialist' bay serviced and equipped for scientific and mathematical work etc. Another example showed how, if the pupils were organised in three main groups of 140 , under the combined care of a small group of teachers, the accommodation might be planned in a more flexible and varied way? for different kinds of groupings according to the type of work being undertaken,
9. Variety in furniture, layout and general character was illustrated by photographs, for example, variety in working surfaces, mobile equipment, wall treatment, etc.
10. It is probably easier to adapt an existing primary school than an existing secondary school to the expected pattern of a middle school. Examples were shown of possible "suites" of accommodation which might be added to Primary Schools.

Notes Most of the plans shown were selected from Building Bulletin No. 35, "Middle Schools". These, however, were illustrated by photographs of relevant primary and secondary schools, or intermediate schools from abroad.

THE AIMS AHD PURPOSES OF THE MIDDLE SCHOOL.
R. J. Dennis Inspector, Somerset L.E.A,

In his opening remarks, Mr. Dennis said that it was most heartening to see that prior thought was being given to a Middle School, but he hoped that any headmaster would not go into such a school with a set of ideas already fully crystallised, Mr. Dennis stated the reasons why it was now considered undesirable to transfer at age 11, then went on to justify transfer at ages of 9 and 13, and finally attempted to extract those factors which should come from both the Primary and the Secondary school in the formulation of aims for the Middle School.

Reasons for transfer at age 9s
(i) Reading ability - by 9, most children will have learnt to read (if a child cannot read by the age of 9, there is going to be some difficulty)
(ii) At age 8 or 9 , there is a marked need in most children for a change in their social environment,

Reasons for transfer at age 13: (these reasons being more negative than positive)
(i) An '11-year old, moving into a bigger school of even 11-16 range was often faced with a disturbing situation due to the larger organisation.
(ii) The 'teaching-situation' so often found in formal secondary schools was not often suited to many children of 11 or 12 . Only a few of the more able would be able to tackle the more abstract or sequential work.
(iii) The 11-18 school presented too large a span of age and you could thus find the school community ranging from the small 11-year boy to the 17-18 (married) girl.

Thus by taking away the first two years of the secondary school you arrived at the $9-13$ school. These years of $9-13$ were also disturbed years both mentally and physically and there were advantages in having these year groups in one school.

Primary Schools at present offer:
a) teaching of those basic skills which parents regard as being the three $\mathrm{R}^{\prime} \mathrm{S}$.
b) a supply of knowledge
c) opportunity for expression - even though this was mostly written forms.

Secondary, Schools appear to have less to offer but had the following characteristics:
(a) use of surnames for boys - leading to artificial relationships
(b) a formal and more structured approach - everyone with a defined role
(c) Years 1 and 2 in a secondary school are regarded as only basic years to the syllabuses of later years
(d) too much reliance is placed on abstract forms of working BUT
(e) the 11-year old needs the excitement offered by moving to the secondary schools, and this feeling of excitement must be transferred to middle schools.

THE AIMS OF THE MIDDLE SCHOOL SHOULD THUS BE;
(1) development of reading skills (particularly for provision of time in privacy to teach basic reading skill to 9 and 10 year olds)
(2) achievement of numeracy - with reference to Nuffield work
(3) expression - break new ground in the use of the spoken word as well as written word
(4) knowledge - between $9-13$ a child starts to reason and he must have access to books (not purchased in sets of 30 , but 30 separate titles)
(5) language - this is likely to be French, and must be tackled well
(6) music and drama - much more time must be devoted to this, if necessary taking time from Maths, and English teaching
(7) there must be something exciting in the middle school
(8) there must be good relations with the upper and lower schools
(9) the middle school is likely to fail unless it can provide for the brighter child, especially at the senior end of the school.

Teachers in existing Primary Schools should find only few difficulties to teaching in middle schools - providing they give care to stretching the more able.

Teachers in existing Secondary Schools will need to make some changes in their approach. 'Specialistl teachers will have a space in Middle Schools, but they will need to alter their approach to their subjects.

In reply to questions, Mr. Dennis expected that something like $75 \%$ Primary working and methods would go to making the Middle School. He emphasised that it would be unlikely that a syllabus would be found in the school, this being replaced by a 'statement of policy'. The Middle School had to teach children HOW to learn and also had to teach the JOY of learning. It did not matter so much what the child knew, providing his attitudes towards working were right.

Mr. Dennis also hoped that Authorities setting up Middle Schools would implement the Burnham Award imaginatively in order to make a workable scheme of allowances in Middle Schools; this would, among other things, assist recruitment.

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PRACTICAL SUBJECTS.
Breaking down the sex barrier in Home Economics -
Miss G. Ellwood. Adviser, Home Economics, Bradford L.E.A.
By the time the plans for the first purpose built middle school in Bradford were considered, sufficient experimental work in primary and secondary schools had been started, to make the need for traditional specialist accommodation for Domestic Science, Art and Handicraft open to question. Within the junior high schools which cater at the moment for the 11-13 year olds rigid schemes based on the teaching of personal hygiene, cookery, laundry-work had been abandoned in favour of a general course at the end of which it was hoped that pupils would be able to prepare a simple meal for themselves and care for their own personal possessions and clothes.

In this industrial city with a high percentage of mothers in full-time or part-time employment young children were sharing the home making duties from an early age, e.g, lighting fires, making meals, sometimes in a house without the supervision of an adult. It seemed to many people there was a need for training for boys and girls in the safe use of domestic equipment before the secondary school stage.

It was decided to provide some primary schools with an electric cooker, sink and tables and a certain amount of simple kitchen equipment; e.g. pans, bowls, cutlery, scales, weights, etc. To begin with the work was centred on 'heat', e.g. radiation, conduction, convection, and with the accent on safety. A sympathetic Home Economics teacher, incidently a mother herself, in a neighbouring secondary school gave advice and encouragement. She reported the children were more assured and often very capable of handling this equipment when they transferred to her school.

Lecturers and students of the Ilkley College of Education were interested to share in our experiments, one education lecturer and ex primary school head led a team in a junior high school, and a Home Economics specialist worked in a primary school. Prom these initial experiments many activities in other schools have developed. Primary school children have made Hot Cross buns at Easter, grown and cooked their own vegetables in the summer, made blackberry jam and bread at Harvest time, toffee on November 5th, cakes at Christmas. They have been to shops and supermarkets and compared the prices thus bringing in mathematics, they have become anxious to improve their reading, to be able to read recipes and other information they require.

At the junior high school stage projects have varied from "our town" which included a study of the gas, electricity and water supplies, and markets which led to a study of the food habits of the native and

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immigrant population to an ambitious one on Aviation. The cooperation of colleagues with specialist interests in
Handicraft, Science, Art and English has been essential in a fully integrated study. With the generous and willing help of Colleges of Education in the area it has been possible to carry out these experiments to date with a high ratio of staff and students to children.

Through Home Economics these boys and girls have experienced the satisfaction of learning manipulative, reading, writing and reasoning skills but not necessarily all the basic skills of cookery, laundry and housewifery to be found in a traditional syllabus at this stage. Miss Ellwood concluded by quoting from an article by Judith Murphy on American Middle Schools-
"Middle school children need something that will be theirs and theirs alone, not something which will correct that which has not been taught correctly, nor something towards which children are preparing. These children should not be prepared for High Schools, the High School should be preparing for them."

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## THE PRACTICAL SUBJECTS

Mr, D.I.R. Porter
H.M.I., Staff Inspector, Handicraft

Mr. Porter began his address by declaring that he was not an advocate of the Middle School, which presented many problems for Handicraft. Speakers at some previous Conference had given the impression that the Hadow Report had chosen the break at 11 for purely administrative reasons whereas the case for transfer at 11 was carefully argued: there were, for example, fifty-five pages in the Appendix giving the physiological argument.

Many Authorities are considering Middle Schools as the only way of bringing about Secondary re-organization because it fits into existing building systems through adaptation, and because it also means fewer "barrack-like" type Comprehensives of 11 to 13.

Since Grammar School pupils were not usually allowed in workshops after the age of 13/14, very few people present at the Conference, being ex-grammar school pupils, knew much about the subject from their own experience at school.

It was still as true today as it was a hundred years ago that the object of the Handicraft Course was not to teach a trade but to develop the pupil's faculties and his skill; to familiarise children with wood and iron, to train the hand and eye to work in unison, and by use of tools, exact measurement and drawing to produce actual things which he can use. The Grammar School child was often withdrawn from handicraft when a creative stage had been reached and when he was ready to make a contribution to design. At this age a child is capable of deciding many of the factors necessary in making something useful.

Work with metal is important; it is not a difficult material. It is possible to make many more simple objects with metal because it is easily bent and jointing is less complicated screwing together, riveting, , welding and the use of modern adhesives.

Older children are now carrying out Technological and other project work. There is a growing link between Handicraft, Home Economics and Science. The conversion of old railway stations, barges and houses as outside centres was not uncommon. Sixth formers, however, resent being taught what they feel they should have learned many years before in the workshop, and this is leading to improvements lower down. The immediate future in the subject is a very bright one.

People tend to have a phobia about reflection downwards from the Sixth Form, but any school must, in fact, look upwards and outwards. If the Middle School . possesses such an upward look, this thinking and
attitude of mind would tie up with improvements taking place in the Upper School. If the Middle School offers a dull "basic course" or a poor imitation of it, the children will have very little skill to carry forward to the Upper School.

It will be necessary to offer workshop crafts in the Middle School. We have to assume that there will be a workshop which will make it possible to work with wood, metal and other materials. Girls as well as boys must have the opportunity of making full use of the workshop. There should not be more than twenty children at a time in the workshop and a smaller number if specialised equipment is being used. The Ferndown brief included two pieces of equipment, one costing $£ 80$, which would only be fully used if there were three workshops, and a metal guillotine which is not even used in Craft Colleges in this country. Equipping the Craft area has not been thought out and we should not go into this re-organisation until we have thought out the detail. "Rough sketch maps" were of limited use: on some journeys one needs a precise map and navigating instruments.

The middle school provides two tremendous advantages to the teaching of craft. One, boys and girls could have equal opportunity in these schools, and secondly, a child can start specialised craft work before the age of eleven. If this principle is sufficiently developed we might need one and a half or two specialist teachers.

It is necessary to take a fresh look at the teaching of craft at the 11 to 13 stage. We now have these modern adhesives and materials and we see modern furniture made out of miscellaneous materials in simple forms. These materials can be introduced at a much earlier age - joining metals together with adhesives, the use of perspex and laminates etc. There is much more common ground between the crafts today. Middle Schools should be concerned with the use of common processes and common tools and materials in making things. There are twenty or thirty skills to know and when children need them these must be unashamedly taught. But we needed to work out which skills are essential. Do not be carried away by sophisticated tools, electric drills, circular saws, etc., for today precision planed wood and precision finished metal can be bought in most towns. Tools for preparing materials are now less important than they were; it is possible to obtain a great selection of materials in nearly-completed form and these should be used to shorten and simplify processes, although it must be remembered that the materials will be more costly.

Equipment necessary for this course should include vices, clamps, marking out instruments, hand-drilling machines, screwing tackle for aluminum and brass, shears of various sorts, traditional tools for hammering metal shapes and a simple lathe. If there is a choice between a wood or metal turning lathe settle for a metal lathe which runs at much safer speeds. - 15 -

Since the room, would be used for specialist purposes for only part of the week, and could not stand idle for the rest, it must be so arranged that it can also be used for nonspecialist practical work. It follows, therefore, that any powered machinery must have lockable switches and that such tools as planes and chisels, which would not be needed by younger pupils anyways should be in racks or cupboards that can be locked.

The Middle School situation was far from ideal from the craft point of view, but we needed to play on the advantages of having better equipment available at an early stages model making, for example, is an excellent junior school craft that can be much improved with better facilities. The skills confidence and knowledge of how to set about practical tasks, which could be imparted in a good school workshop, were of immense value in any walk of life.

Mrs. B. Parr H.M. I., Specialist Inspector for Modern Languages

The aim here is to establish a "pedagogic, psychological and practical relationship" between music and language, both forms of communication. Music and language, including the mother tongue, arise from an inherent response to sound and rhythm. Keen listening power and the use of vocal organs are required in each and the skills of speaking and making music develop as the result of regular practice. It can be argued that there is a common bond between the study of each.

The main aims of a Middle School are to help a child to learn and show him how to understand and live with himself and others. What he does must be related to life.

Music transcends the bounds of language and intellect. Children's lives can be changed if they have a love of music and are able to develop a discrimination in music. There should be scope for talents to be exercised and for new ones to be developed. Mass singing in which songs are learnt by rote does not lead very far; the child must be helped towards musical literacy and independence.

Music had an eminent place in past cultures. Plato believed that the study of music had a profound influence on character. At the tine of the Reformation, particularly in Germany, there was again great interest in music as an integral part of education, but during the 18 th and 19 th centuries a musical training in England was generally regarded as peripheral rather than essential. In the late 19th Century, however, Matthew Arnold recognised the importance of music in education when he said, "It is easier to gain entrance to the minds of children through music than through literature." The enjoyment and experience of music oust precede any attempt to compose on paper, just as we first learn to enjoy the sound and rhythm of language, developing our oral proficiency, before meeting the practical word. As Rousseau had said: "Every child, should be exercised in the composition of melodies, but the reading of music should come only when a love of music has been awakened."

Today, with the influences of so much well-organised popular music, we must present good music professionally and teach the art of critical listening.

Children, through listening to music, can become familiar with its melodic and harmonic structure. Pitch-percussion work can give an appreciation of rhythm and melody which can lead to the devising of simple melodies, which can later be recorded on paper. This could begin as a class activity, then break into groups as skills diversify. Pitch percussion instruments such as glockenspiels and xylophones are easier to play than recorders, and enable children without any marked musical
ability to experiment with instruments which are easy to manage.

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More gifted pupils - and teachers - can produce musical sounds from the piano and violin, With the use of the pentatonic scale ("black notes on piano) discords can be avoided when a number of instruments are being used with a group, (l)

A recording of "Songs for Children" by Anne Mendoza, Joan Rinner and Pat Shaw shows how attractive such instruments can be in the hands of sensitive performers.

The film "Our Own Music" from the series "Discovery and Experience" originally broadcast by the I.T.A., further illustrated the case for using simple instruments. It showed various aspects of creative music-making in Primary Schools, gradually leading to the writing of original compositions.

Note (l): The removal of the third and seventh notes from the diatonic scale produces the pentatonic or five->tone scale.

THE TEACHING OF A FOREIGN LANGUAGE
Mrs. B. Parr. H.M.I.
A national experiment is being conducted by the Schools Council in the teaching of French to children aged from 8 to 13. Teaching began in September, 1964, in 13 pilot areas; subsequently a further 80 local education authorities have been associated with the scheme, beginning in 1965 or 1966. The main purpose of this pilot scheme is to determine, (i) whether children of these ages can learn French in ordinary classroom conditions, (ii) whether it is possible for good primary teachers with only "School French" to gain an adequate command of the language by following a systematically planned in-service training programme, and (iii) whether French will integrate well into the ordinary curriculum and will have any effect on the children's general attainment. In conjunction with this national experiment, the Department of Education and Science has commissioned the National Foundation for
Educational Research to carry out a continuing and systematic assessment of the children's progress. A sample 11 1/2 thousand children (l,700 of these being of low ability in other subjects) have already been tested. The conclusions so far reached are that "it is clear that a pupil's potential ability in French cannot reliably be predicted from his performance on a general attainment battery of tests. There are sufficient high-scoring children in the low ability group and sufficient low-scoring children in the high ability group to cast doubt on the validity of using general attainment as a predictor of language -learning success in the early (oral) years of learning French".

All children in a 9 to 13 Middle School should have the opportunity to learn a foreign language, which at present, by necessity, must be French, Nearly $4 » 000$ students are studying French in Colleges of Education with about 90 colleges now offering a main French course. The supply of qualified teachers of French should improve very soon.

Perhaps a second foreign language could be introduced towards the top of the school for children able to profit from it. From 11+? Might help be given by teachers from Grammar Schools to overcome the staffing difficulty this might entail? The Nuffield Team have already produced a beginners' course in German, Spanish and Russian for children from the age of 11.

In school, children should hear the foreign language spoken in everyday situations without the intervention of the mother tongue. Reaming and talking (imitating) should precede reading and writing. Chorus work, which can provide a beginning, can soon be diversified. Group work should not be introduced until the children have reasonable control of the spoken language | initially the teacher's direct supervision is essential. Electronic aids have great potential value for individual and group activities.

The Middle School requires a teacher with a good knowledge of French, who is also a good primary teacher, the French teacher is, howevers not a specialist in any narrow sense and may well be involved in teaching other branches of Study. However, as the teaching of French, as well as of music, frequently needs the use of special equipment and accommodation, access to these must be arranged on a timetable. One possible design in Building Bulletin No. 35 (page 87), shows the provision of a special group of rooms, suitably acousticated, for music, language and drama\} these allow space for a variety of activities, as well as the use of electronic aids, the storage of instruments, etc. A possible administrative formula would be to allot a daily block of time (say 60-70 minutes) to the oral arts, which would include music. French and spoken English, particularly drama. A team of teachers responsible for this area of the work could determine the use of time and equipment; daily practice in French is a vital factor in progress but the time allotted each day need not be lengthy or identical. Sometimes quite a short time will be adequate, and on that day a longer period will be available for the other oral arts. This form of organisation seems best fitted to those branches of study which need regular, frequent practice-periods, and to associate then in terns of personnel, tine and space avoids too much fragmentation of the programme of the Middle School which must remain a coherent and expressive whole.

INTRODUCTION TO A PRACTICAL EXERCISE ON MAKING A PROGRAMME FOR A MIDDLE SCHOOL
Miss S. M. Co Duncan H.M.I.
Staff Inspector Primary (Junior) Education
We have come to a particularly challenging and important stage in this Conference; previous lectures have been interesting and important, but as long as we are discussing generalities we can often persuade ourselves we are achieving agreement, when in fact it is eluding us. Inevitably we use words in different senses, in the contest of our own experiences, andoften do not realise that we are referring to quite different things; and when we are talking about something new like the Middle School, misunderstanding is particularly easy. We cannot have had common experience as there are virtually no Middle Schools -though there will be after September - and there are not all that many lower forms of Secondary Schools working in other than a rather narrowly specialised way.

In these circumstances words turn easily into jargon, and sometimes seem to develop a life, a momentum of their own. Just by using them we feel we have solved our problems," There is a danger of that happening over team teaching. We say - 1et the staff work as a team, and sometimes believe that thereby we have escaped time-tabling and rigidity. But even the sharing of a home corner in a single infant class may involve some planning and some disappointment to the children. How much more planning and sacrifices will be involved in synchronising the needs of 140 children, and the gifts of 4, 5 or 6 teachers.

Most of the Team Teaching I personally have seen, admittedly in the U.S.A., has been disturbingly rigid and has eaten up teachers' time in organisation and children's time in movement about the building. I do not think that is inevitable, but if you are going to look to team teaching as a solution you must think out just how it works in a given situation - describe it in detail - and not just at one moment in time5 but throughout a sequence of occasions. A given concrete situation, even if it is imagined, ought to prevent us getting by with vague words. Another advantage is that, as I have already implied, it forces us to accept that choices and sacrifices have to be made, and indeed to make them.

The principles that underline the organisation of the Middle School can have conflicting and discordant outcomes. We have to compromise. If we give special weight to a particular principle in one aspect of organisation, we may have to treat that principle more cavalierly in another aspect. Whatever we put forward there will be imperfections. Of course, there is no one answer. What we hope for over the next few days, is that principles will throw up a range of ways of organising a Middle School.

My introduction is going to fall into four parts. First, a brief word about your terms of reference. Secondly, a quick summary of the underlying principles. Thirdly, I am going to describe some of the areas of organisation which are affected by these principles and indicate something of the range of decisions available to you. Fourthly, I am going to make some suggestions about the kind of material you might provide to substantiate your solution.

First then, your terms of reference - to make a programme for a 560 Middle School 9-13. The size of staff put forward is 21 full timers, including the Head, and in addition the equivalent of another two teachers in part-time help. This staffing figure which represents a midway position between the Dorset quota for primary schools and its quota for 11 - 16 schools seems to be a handsome compromise, I hope it will apply to the 5-9 schools also, I never could see why 11should be taught in $40+$ classes and 11+ in 30 classes - on the other hand the school to 16 has to provide for the options of school leavers, and they are costly in staff. The staffing ratio of 1 - 24 is more generous than other proposals $I$ have come across; for realism sake you might in your exercise be slightly less rather than more generous.

You have to think not only about teaching loads; but also about the more general responsibilities for advice and oversight carried by the staff. Other authorities planning 560 Middle Schools are allowing three or four heads of department, one of them Grade B, and four graded posts. That seems a suitable basis to work on. You have also the plan of a purpose built 560 school and. a brief to explain it. But I would hope you would not let yourself be entirely limited in your organisation by the assumption about the use of the building being made in the brief, or by the labels on the plan. Indeed; since internal walls are to be moveable, minor alterations in the building to fit your organisation might be permitted, Or if the plan you want just will not fit the organisation, you might like to make a note of the modifications you would wish for.

So much for the brief. Next, for a run through of the principles and facts underlying the Middle School. You have read about them in the papers, you have heard and will be hearing about them all the week, so I shall be brief.

Most important of all are the individual differences between children. Quoting Dr. Tanner, it is almost a nonsense to talk of a 10 year old as a 12 year old. Some children, even of the same sex, complete the longish cycle of change associated with puberty before others begin them. Even if we limit ourselves to a little under $70 \%$ of the population - those with I.Qs. between 85 - 115 and leave the extremes, there is a four year span of mental age in children of 10.6 -from 8.6 to 12.6 , and with each succeeding year of age the gap widens.

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Intelligence - intelligent behaviour - depends on active, interest, the stimulus of the environment, as well as on innate potential and stage of maturity. At its simplest that stands out in the older slow reader doomed to failure by his boredom with the world of Nip and Fluff and Dick and Dora. On our present knowledge we cannot tell how much of a child's intellectual performance is due to environment, how much to genetic endowment, how much to advancement on his curve of maturity. If there is any association at all between intellectual, physical, and emotional maturity it is a loose one. Irrespective of ability, children differ in their styles of learning and their spans of attention. The outcome of all this is the need for learning to be geared to the individual and for not pre-judging children's future. If learning and levels of learning have to be so individual, children must be in close touch with one or two teachers who can watch and oversee their progress.

I come now to a second principle. Children in this age range, perhaps more than any otherg enjoy working in groups. Even if the country could afford one teacher - one child, it would not make sense. Intellectually as well as socially children learn from their peers. It is in discussion with them that they begin to achieve objectivity. They benefit from belonging to stable groups that develop their own personal! tjr, their own history and myths, their own funny stories and pet phrases. But let us not be too airborne - they can get sick of each other and of having the same teacher. I think we need a lot more experiment about the size of group which provides a stable social and intellectual background for children at different ages. Perhaps we shall get it from the Middle School.

Thirdly, as I have already implied, interest is a powerful incentive to learning, though not the only one. Children's interests do not fit tidily into subject boundaries. I often wonder if any persons do, except under the pressure of examinations. Adults with deep, narrow interests may be concerned with only a small part of a subject. More often, I believe, adult interests cut right across subjects. We are hearing a great deal about humanities' courses for 14-16 year olds, and about general courses for 6th formers. How long can the emphasis on single subjects remain for the 11 - 13 year old? Twenty years ago the A,A.M. criticised "formal academic teaching of separate subjects by a number of different teachers" for children of this age. "The rigid separation of subjects, the brief periods, the lack of activity, the isolation of school work from the rest of the child's life and from the outside world do not encourage spontaneous and sustained activity for its own sake. Even these may reach a point of mental saturation and become mere absorbers of knowledge". This quotation and the passage that follows make several points. They counter the still prevalent idea that single subjects make for depth of study. They may make for sequence in study. Often they lead to mugging up facts that are too oversimplified to be useful in adult life. Even more
important, attitudes and skills learnt in solving a general problem are more likely to be transferred to other situations than those pigeon-holed as belonging to a particular school subject.

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Yet, whatever the disadvantage of compartmentalised learning, we have an obligation to introduce children to the broad areas of human experience. Whatever the virtues of choice, and there must be plenty of opportunities for children to choose, they cannot choose what they do not know.

Fourthly, there are limits to the miracles we can expect from the teachers. A great many teachers will have themselves begun specialising at about 14, had a highly specialised sixth form course, followed by the study of one or two main subjects at College of University, often the same as those they took in the sixth form. However good their curriculum courses, however earnest their attendance at courses, it is asking a lot to expect them to cover the whole curriculum to 13.

Fifthly, though some children in the first year of the middle school will be more advanced than others in their fourth year, all will continue to develop while they are there- They will expect their growing up to be reflected in gradual changes in organisation.

So much for the basic principles and facts. What dilemmas in organisation do they create for your exercise? What kinds of social and teaching group will be most profitable for children and most economical in their Use of teachers' time? The Ferndown brief assumes forms of 35 throughout, and association between forms in the first and second year and those in the third and fourth year. You have, I think, to decide whether with a staff of a head and 22 assistants, there would be anything to be said for a slightly larger number of forms, including possibly a remedial group or two. Some things depend on the catchment area which you posit for your school. Alternatively, for the older pupils you might abandon forms altogether and introduce tutor sets as in some secondary schools. The snag of this is that it is a bit extravagant in use of staff - a form teacher picks up his knowledge of pupils "on the side" - by teaching them. You have also to decide whether you like the grouping of first and second years and third and fourth years. The building probably makes it inevitable and there is much to commend it. But it can be argued that this division at 11 is likely to perpetuate the primary/secondary break within the middle school.

A possible alternative would be a first year group, with close connection with the 5-9 school, and associated second and third year, and a fourth year, looking to the upper school and perhaps with some staffing help from it. So far, I have assumed like the Ferndown brief that forms will be confined to a single age group. At least one middle school plan I have seen, proposed a two year age span in forms as a general
principle. The effect is undeniably to increase the already wide attainment range in a class. That is unless you stream on attainment. I say attainment, rather than ability quite deliberately, differing rates of maturity make it so hard to assess ability. Does that push one away from streaming? Maybe so in view of the growing concern about the effect of teacher and parent expectation on children. Put a child in a low stream and you tend to expect little from him.

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Expect little and he will achieve little. You night conclude that you can do without streaming since there is going to be much individual work anyway - but that you will use some of your staffing resources to provide remedial help for the slowest, enrichment for the gifted. This could be all right as long as remedial work is not just slogging at isolated skills. Or perhaps you will decide to "set". If you set in several areas of the curriculum, classes may rarely work as a whole, and will not develop as corporate entities - and aspects of the curriculum may be isolated and if the form teacher's own work is set, he will have fewer opportunities for getting to know his children. Another possible out cone of settings since most special abilities develop later, is that the sane children will turn up again and again in the top sets and correspondingly in the bottom sets, and you are no better off than if you stream. Even .so, you may well decide that setting is unavoidable for some parts of the work for the older children. Written French, for example, may be a waste of time for some children and essential for others. You could argue that mathematics changes in character - or ought to - for the older and abler children. But if you set for mathematics you may have either to separate it from science - or if you link mathematics and science and set right across, you are reshuffling children for about a quarter of their week.

Two other points about grouping. More generous staffing ought to make possible smaller classes for some purposes. Do not let us be dominated by the past and assume that it is necessarily the craft subjects that must be taught in half classes, once, $1 / 2$ by 40 - now $1 / 2$ by 35. If safety is the basis, science is a candidate too. I think we need to start from scratch over this, taking account, of course, of the danger element. But if classes are unstreamed in basic work like the humanities, we need to provide some small tutorial groups. Might it not be possible sometimes, for example, for one teacher to look after 25 children for mixed art and craft - including some handicraft or housecraft - so that the remainder could have a small group tutorial in English or Science?

You will also need to think freshly about the areas of the curriculum for which the sexes have been divided. Is there any reason why girls should not work in wood - boys try their hand at embroidery and cookery? And for how much of the P.E. is a division in sex essential?

First then, you have to decide about grouping. Secondly, about the aspects of learning you are going to provide. The topic is inextricably mixed up with staffing and specialisation or teachers with specialisms. But whether or not the bulk of the work is left in the hands of the class teacher, heads and staff will have to make decisions on the broad areas of experience to offer to children, decide at what stage they should be introduced and decide on the total balance, not in a day or a week, or even in a term, but at least in a year. When will children begin the first foreign language? When, if at all in a middle school, a second? Will you group visual and practical arts and give the

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children a choice - or should they have a bout first at one, then at another? What about the core subjects? Will they be completely undifferentiated at any stage in the school? Will a time cone for some groupings and what would you prefer? Do you see value in something called the humanities incorporating $R$. I., Literature, History and Geography? Would you prefer to leave English as an entity and link History and Geography in Social Studies? Do environmental studies make sense as an area of the curriculum in which first hand learning is emphasised including Science, Geography and some History? Or do Mathematics, Science and Geography cohere more closely? Does it matter whether one finds new names as long as teachers are responsible for sensible combinations of subjects and treat them liberally? Treat them liberally - that may mean opportunities, seizing on a current interest, and allowing it to spread across these areas of the curriculum to which it is relevant. It may mean giving a solid dollop of time to an undertaking, whether it is producing a play or making a tapestry, or building a weather station, or hearing a work of literature read quickly from end to end.

If there are two broad areas of general study in the older classes - the humanities with a literary bias and environmental study with a scientific bias, could these alternate in a pair of classes with a pair of teachers, so that each had similar treatment in turn? A possible snag would be that the .form teacher for a time would see little of the class. Are there any expectations to the general idea of its being preferable for individuals, groups, classes to go all out at a topic while interest is high? Does anything need to be a little and often, in French, perhaps, or some aspects of music? Some aspects of mathematics, certainly call for a fair stretch of time.

Physical Education - is it still the case that young children need a period a day? Or is the argument less strong now that children spend less time sitting in desks? For the sake of spaces and people that have to be shared out, you will need to decide on a framework of the day. What sub division would you propose? Would it encourage teachers to give children their
head and to take them on expeditions, if the day were divided into only four blocks? I assume that any arrangements would be flexible and would only bind when changes of teacher and place are involved. When you have made your pattern, you certainly ought to scrutinize it to see if children have enough room to choose. You may want to provide substantial time in school for clubs - but the effect is to restrict the time available for other aspects of the curriculum.

Thirdlys we come to a problem we have been skirmishing around. How much of the curriculum can we expect any one teacher to cover at various stages of the school? Before answering that, you will probably want to ask yourselves another question. How are you going to ensure in-service training within the school? What guidance will teachers get in various aspects of the curriculum? Will you assign headships of departments and graded posts to leaders of age group teams - or to those responsible for an area of the curriculum - or for subjects more narrowly conceived - or to combinations of two or three of these?

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You will not, of course, have to limit advisers on curriculum to those holding graded posts. You night indeed assume that every teacher should be encouraged to build up some special strength. How will advisers on age groups or in the curriculum make their help available? Will it be enough to have staff meetings out of school tine, or ought meetings for teachers of any age group to be timetabled?

Could teachers continue to take their own classes for most of the curriculum if they were supported either for a concentrated stretch of time or for once or twice a week by a teacher with specialism?

Would Art and Craft specialists be well used if they were associated regularly with those responsible for say, environmental work or the humanities? So often the stimulus for Art and Graft will cone from work in these areas. Yet I suspect that for the oldest children there ought to be tines when the range of materials and the setting provided by the Art and Craft specialists themselves provide a stimulus. Or let us take Mathematics. In one of the papers it was suggested that Primary Teachers can cope quite easily with Mathematics up to 11. Is this really so? Perhaps they can manage with guidance from a consultant, particularly if the consultant works beside them occasionally in the classroom. But this means tight time-tabling for the mathematicians, and are we going to get enough to make that possible? At the time of Plowden $2 / 5$ of women going to college, $1 / 4$ of men were without 0 level Mathematics? and the situation was deteriorating. Can we expect teachers, even with reinforcement in the classroom, to teach right across the curriculum to 12 and 13 years olds or even across Mathematics and English? There was a time when this was done in Secondary Modern Schools. Did it make for
good English or good Mathematics? Would it be preferable to expect and train teachers to cover the bulk of the curriculum in the first year, contracting out only exceptionally, as primary teachers now do, say in P.E. or Music, but only say, $1 / 3$ of the curriculum by the fourth year. If we decide for a third - a class shared between 5 or 6 teachers, do we want standard or varying combinations? Would you plan for or hope to acquire a thoroughgoing specialist - say in Music, P.E. or in French? How are you going to use part timers? For instrumental music, but what else? Does all this sound hopelessly formal even for the oldest children?

Would you prefer to associate with four classes a teacher biased towards Mathematics, another say in Science, another two gifted in English, History and Religious Instruction, and reinforce in Art, Craft and Music? Then the whole thing night be left more flexible and teachers could interchange informally.

Whatever you decide, you ought to look at your staff list and their responsibilities and see what flexibility is possible from year to year. It may be at first that some kinds of teachers will be in short supply and that they will almost certainly work mainly with the older pupils. But it night be disastrous if the staff stratified and no movement of staff was possible, and the consultants only taught the older children,

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No-one would suggest that a reorganisation of the educational system can of itself create a new educational Jerusalem, what it might do is free us briefly from convention; give us a stimulus to think again from scratch of an organisation which will approach more nearly to realising our objectives.

THE INTEGRATED APPROACH AND STREAMING
Mr. J. Walton
Senior Staff Tutor, Institute of Education; Exeter
Mr. Walton, speaking on streaming quoted that "Recapitulation of old knowledge is not enough". A revolution of attitude is required! a move from the impersonal to the personal; a consideration for those less well endowed with attributes for academic success, and those with less favorable home environment.

We are conscious today of movement from convergent (one answer) thinking to divergent (many answers) thinking, and. this implies the creation of "learning" rather than "teaching" situations. The "40 minute cell" with the teacher in front of rows of children is still predominant in England but the pattern is changing and size of groups varying in and out of classrooms. A greater flexibility is to be found in the Primary schools where there is a growing tendency to move from desks to tables and where the teacher is becoming a "manager of resources" and also a manager of sections of the time table along with others, all of which gives greater power and responsibility to the teacher.

Speaking from his own experience Mr. Walton said that mixed ability groups are both desirable and possible. For economic reasons alone we cannot afford to "waste"' children and a child deprived of sophisticated language will not have such good "concept" formation. Thus experience in a mixed group will aid such children both academically and socially. In his comprehensive school Mr. Walton did not have a remedial group because he feels that these children tend to improve with a good teacher in unstreamed groups where a lack of confidence or any ineptness will be more obvious and can be helped. Quoting various methods of organising mixed groups of varying sizes with particular emphasis on English, Mr. Walton concluded by reiterating that teaching methods must be changed and a group of children considered as so many separate "streams" making essential an individual approach.

Mr. W.J. Hanson
Adviser on Curriculum Development, Oxfordshire., L.E.A.
What can we reasonably expect of children at the end of their stay in a Middle School?

1. That each individual should "be still interested in learning (achieved by inspired teachings relevant and real studies, especially of the local environment).
2. That the individual should have learnt how to learn. (Emphasis on sequence of skills of learning - enquiry based studies - active classroom situations •- exercises in critical thinking,)
3. That he should be capable of working harmoniously with others in groups (suggesting an expressive rather than a repressive situation).
4. Have acquired sound concepts (stemming from wide interplay of ideas and higher relationships).
5. To be able to make decisions and to have the judgement to carry then out.
6. To acquire attitudes accepting sound moral standards as norm. (there are of course many forces involved in attitude formation.)
7. To acquire the range of skills necessary for further progress and commensurate with his ability.

These points stressed the need for individual learning methods. How can this be achieved?

There should be a shift of emphasis from class teaching to snail group and individual activities in which the role of the teacher is that of adviser and tutor. This is all the more important where nixed ability grouping is involved. A critical factor here was the facility for individuals and snail groups to undertake independent studies, perhaps for $40 \%$ of their tine. Materials need to be prepared for this. They are not yet available.

If we are ready to allow pupils to exercise initiative, follow their lines of interest, we must be prepared for then to break down subject barriers. The need for a wider interplay of ideas, use of the environment (itself integrated) and the sharing by certain subject groups of many common skills and concepts argued further for the integration of subjects. Some studies, because of the linear learning process involved, should remain autonomous (French, some parts of Mathematics).

An 'integrated day' during the first two years, based on the broad integrated approach of the best primary schools, should be acceptable. In the next two years Mr. Hanson suggested the equivalent of a half-week spent on topics which were interdisciplinary, involving reading, speaking, critical thinking, skills of enquiry and social requirements. A quarter week night be spent on studies based on maths and science, a fair tine on certain creative studies where, in view of the school plan in question, time tabling would be required.

This demanded not the banishment of specialists but a new role for the specialist and group planning - not the disappearance of specialist subjects but a very different situation. The Middle School would need to be a 'power house' in curriculum development.

What must be demanded of teachers in such a school?

1) Objective thinking.
2) Willingness to work in harnony with colleagues.
3) Willingness to go on learning.
4) To have a depth of understanding in one subject area and a wide based interest in other subjects.
5) Enthusiasm to implement courses of study and to share specialist knowledge.
6) A readiness to put children before subject.

The success of the Middle School would depend very much on the attitudes of mind - a free, positive approach.

To sum up, we were seeking a situation in which teachers teach a little less and pupils learn a little more.

Miss S.M.C. Duncan
H.M. Staff Inspectors Primary Education

This presented a Most obstinate and intractable difficulty.

## Historically

1930, Hadow Report had advocated a break at 7 and a clean break at 11, but emphasised the necessity to bridge the gaps.

1956s A team of H.M.I's had investigated the problem and had expressed concern.

1966, Plowden Report found a similar lack of continuity. Evidence is found in the large number of children referred to the Child Guidance Clinic at 8, and in the increase in truancy at the early secondary stage.

Some Suggestions which would help to overcome the difficulties:

1) A better valuation of the lower school. This might be brought about by careful selection of staff and by ensuring that it got a reasonable share of resources. It was important to get the beginning right.
2) Close contact between teachers from each side of the gap, both professionally and socially.
3) Joint staff meetings on specific points of teaching,
4) Exchange of staff.
5) Two-way reciprocal visits by Heads and class teachers. Both Primary and Middle schools should take the initiative.
6) The keeping and passing on of accurate pupilrecords. Also the feed-back of information from Middle to Primary school.
7) Consistency in approach to teaching on each side of the gap.
8) Make the transition as easy as possible by, for example, half-day visits of children to the new school.
9) Joint P.T.A. Meetings or other infernal ways of assisting parents to understand what is implied by the change from Primary to Middle School.

However, continuity should not mask the idea that change is stimulating.

Mr. J. Walton
Senior Staff Tutor, Institute of Education, Exeter
Again there has been lack of continuity possibly due to inhibitions of Head teachers fearing any form of curriculum direction.

A possible solution was the amalgamation of primary, middle and upper schools into one unit sharing a governing body, (including Staff representative and parents) and electing an Academic Board (consisting of Heads, and representatives of Staff and lay people).

The Advantages

1) Knowledge of all stages shared by all.
2) Common Projects could be undertaken.
3) Joint appointments could be made.
4) Objectives could be communicated to Parents of whole area as a unit.
5) Specialist Welfare workers could be appointed,
6) As a large unit, could be an effective resource unit.
7) Could be a teacher centre with in-service training.

The Difficulties

1) Problem of aided and controlled schools.
2) Parents' choice of schools.
3) Area managers are generally not popular.
4) Not organisations, but personal contact required.

To Sum Up
A gloomy, historical picture but Teacher Centres, Subject teacher associations, Nuffield Schemes, The Middle School Philosophy, and Conferences and Courses cutting across traditional divisions make for better understanding.

## Plenary Session

DISCUSSION POINTS:

1. What is the role of the Head? - this includes his relationship with the staff and with the children.
2. How much of the curriculum should be integrated?
3. The allocation of posts carrying extra allowances.
4. The distribution of specialist facilities in the school, including those in areas for year groups and those in areas shared by the whole school.
5. What opportunities should there be for working in nixed age groups and how should these be reflected in the allocation of space.
6. To what extent should age groups Use nixed in working and social situations.
7. The place of large grouping-teaching in the middle school.
8. What provisions should be made for exceptional children at both extremities of the ability range?
9. What arrangements are made for pastoral care?

## Plenary Session

## 1. THE ROLE OP THE HEAD

The following points were made:
a) There is a difference between a headMASTER and a headTEACHER. The Head should be head of a team of teachers and because of his position as leader of staff, and parents, he must have good liaison with the community he serves,
b) Only by doing some teaching can the head see many of the problems in the school.
c) All considerations of the role of the head must be linked with that of the deputy head.
d) The head should p e r c olate.
e) The head must deal with individual children's difficulties.
f) Care must be taken that the head of a middle school does not spend all his time showing visitors round the school.
g) The teacher will "become more of a director and the head will have a definite role as co-ordinator.
h) Much of the time of the head should be taken up with contacts with his junior and upper schools.
i) Flexibility essential.
j) It would be valuable if the head could meet his staff before they join the school, possibly visiting then in the schools where they at present teach. A conference perhaps a residential weekend - for all members of staff would be most useful.

## 2. INTEGRATED CURRICULUM

There was considerable discussion on the meaning of
"integrated" and there follow some points which emerged:
a) Integration must not be imposed from above. The extent of integration should be left to the team leader.
b) We must not strain after links that do not exist. The teacher must have the right to opt out.
c) Good records must be kept and these must be easy to complete.
d) The danger of integrated work being teacher imposed must be avoided.
e) Resources areas need much consideration.

## 3. POSTS CARRYING EXTRA ALLOWANCES

There were differences of opinion here, some feeling that heads of department allowances should go to subject specialists who are team leaders, others feeling that tean leaders need not necessarily be subject specialists. There was also discussion on the sex of the deputy heads sone saying that the deputy should be of the opposite sex to the head, but the majority felt that the best person should be appointed regardless of sex.
4. SPECIALIST FACILITIES ITT THE SCHOOL

It was agreed that all practical resources should not be concentrated in special rooms but facilities should be distributed round the school. Particular points mentioned included the following:
a) The possibility of library balconies, a feeling that height is not used enough.
b) Practical area and library suggested for a -group of classes.
c) Mobile furniture.
d) Importance of access to special areas.
e) Many felt that it would have been helpful to have had representatives from the architects' department present at the conference, and the whole question of consultation with teachers is often overlooked.

## 5. MIXED AGE GROUPS

Opportunities for nixed age groups were thought of as follows:
a) The School Play.
b) 1st and 2nd years and 3rd and 4th years possibly working together on projects.
c) Difference of opinion about mixed P.E., some for, others not.
d) The specialist remedial teacher would have children from any part of the school.
6. TEACHING OP LARGE GROUPS

Generally this would involve TV or film viewing and it was agreed that teachers must be present too in order to share the experience with the children. A tendency to make whole group sessions too long must be guarded against. A gathering together of all age groups in order to see end-products was recommended.
7. PROVISIONS FOR EXCEPTIONAL CHILDREN
a) The brighter children must not be neglected. They should have immediate access to specialists. The creatively bright child must be considered also.
b) The remedial teacher should have a graded post: he should be completely untimetabled.
c) Both with the more bright and the less able children provisions must be started in the first school and the team leader of the first year in the middle school should be in close contact with the first school.
d) Too much labelling of children should be avoided.
8. PASTORAL CARE

Both the physical and spiritual world of the children coming to middle schools were discussed. A definite need for ancillary help was expressed.

DORSET
Anderson, R.J. Underhill County Junior School
Baileys S.J. Dorchester County Primary School
Bayes, J. Cranborne Modern School
Birchenough, J. 16,Casterbridge Road, Dorchester
Browiie, A.J. Upwey CE Primary School
Butler, Mrs. E. Ferndown Modern School
Cotterells A.R. Verwood County Junior School
Dacombe, R.H. Wimborne County Primary School
Davidson, M.H. Ferndown Modern School
Davies, J. Bovington Primary School
Bodd, S.T. Littlemoor County Primary School
Ebbs-Canavan, Miss M. School House, Ashmore
Endacott, S.J. Radipole Primary
Furze, T.J. Whitechurch Canicorum Primary School
Gosney, E.P. Swanage Junior School
Harding, R. Westham Junior School
Hodgson, A. Cattistock School, Maiden Newton
Horwood, H.C. Bovington Modern School
Houlton, Miss M.E. Cranborne Modern School
Jenkin, J.C. 28, Grosvenor Road, Dorchester
Jones, V.L. Westham Boy's School, Wey
Kearsey, A.T. St. Osmond's Junior School, Dorchester
Last, A.J.
Lee-Jones, Miss Bovington Modern School
Lewis, B.M.S. West Moors V.A. School
Litson, J. Swanage County Junior School
Loader,R.W. (Day only) Cranborne Modern School
Mellor, D.H. Wareham Modern School
Nyblad, Miss R.P. Parley County Primary School
O'Sullivan, Miss N.M. College of Education, Weymouth
Potter, M.N. St. Mary's School, Puddletown
Pressley, H.E. Hampreston CE VA School
Riley, A.A. Leigh VC School, Dorset
Roach, K. Yetminster CP School, Sherborne
Roche, L.D. Woodlands Farm, Plush
Shaft, A. Lockyers School, Wimborne
Shaw, Miss E.M.E Swanage Modern School
Skellem, C.K. 2,Salisbury Villas, Dorchester
Taylor, S.V. Portland Tophill Primary School
Thomson, Miss S.M. County Hall, Dorchester
(Mon. \& Tues. night only)
Tozer, S.A. The Modern School, Sturminster Newton


