In looking forward to a system of permanent education, there is a need for a definition of objectives which would determine the structures, content, and methods of education. The formal educational system would have four functions: occupational training; providing basic education; teaching how to take advantage of out-of-school possibilities; and motivating the future adult to continue to educate himself. Reforms would be required: time must be allowed for experience to be extended through visits or work; choice of subjects will have to be diversified; and teaching must be linked to the learner's experiences. Information and guidance will have a capital role to play. This educational transformation would require a year of study, several years of experimentation, and a stage of systematization which will allow for constant critical appraisal. (NL)
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PERMANENT EDUCATION
A PROSPECTIVE VIEW

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A PROSPECTIVE VIEW OF PERMANENT EDUCATION

REPORT I

by

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OUTLINE

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IX - How to start?
I - PREAMBLE

The view to be presented here is not the product of an a priori concept of permanent education that one would then seek to justify and express in the form of a workable system directly available to all and capable of being fully applied at once.

Rather than tie ourselves here to probabilities to which we would then have to adapt our views, we have preferred to look ahead to the prospects for permanent education, envisaging them from a standpoint in the future rather than in the present. For that matter, there is no present in permanent education.

This approach is not a retrospective, that is to say a speculative, one but a forward-looking one pointing towards action. Let it not be supposed, however, that I have drawn up a plan for the coming twenty years. Our purpose is not to put forward a specific plan but to propose a subject for reflexion - a starting point for possible plans and desirable experiments.

When looking into the future, one of the "rules of the game" is that one can claim the right to imagine everything afresh, to call everything in question again and to build everything anew. This has brought us to propose an overall system designed to go beyond all adaptations and partial reforms.

It may be that, looking at the details of the proposal, some will see in it things that already exist, while others reacting to the system as a whole, may regard it as utopian.

We would draw attention also to a point of fundamental importance. We pass no critical judgment on the educational system, except to say that it is not geared in any way to permanent education: what we have is a juxtaposition of a school education system and of a certain number of post-school experiments and achievements.
II - INITIAL DEFINITION OF OBJECTIVES

There can be no education unless its aims have been defined fully and at the most general level - that of the Ministry of Education - as well as the most specific - that of the teacher. To teach is not an end in itself. More accurately, the ultimate purpose of teaching is too complex to be summed up in a single aim. Nor, however, is the process of learning or of acquiring an education an end in itself and its ultimate purposes can neither be summed up as a single objective nor be left undefined nor again be accepted without discussion by those who are learning.

Though a truism, this principle is nonetheless - let us be bold enough to say so - too often overlooked.

At the risk of being, indeed, severely criticized, we would say:

- only very rarely has the Ministry of National Education defined its general aims;

- teachers, though they generally do pursue definite ends, do not discuss them with one another and scarcely ever explain them to their pupils or discuss them with their classes.

Yet it is upon objectives that the structures, content and methods of teaching all depend. This point appears to us so fundamental that, before considering anything else, we shall examine the problem by looking at it successively from the angle of the teachers and the taught.

1. **The Ministry of Education must lead the war**

There are many possible objectives, including, for example:

- to shape the mind or behaviour for vocational, civic or family life,

- to pass on the cultural heritage,

- to educate young people only or both young people and adults,

- to meet employment requirements,

or any combination of these different aims.
Moreover, each of the foregoing suggested objectives covers in turn a whole range of secondary objectives. For example, behaviour training covers numerous possibilities even where it is confined to character formation. One may want to train men who will be obedient, automatons, or independent, open-minded, ready to accept responsibility, persevering, or individualistic, or team-spirited. Thus it is the whole system of values that has to be defined, and that is a matter of policy.

2. Next, educational establishments must define their aims

Starting from the aims of the national educational system, each educational institution must define its own aims. For example, where one establishment is entrusted with the training of teachers and another with the training of mining engineers, there will be many differences between the aims of the two. But what lies behind the concepts of "teacher" and "mining engineer" and what type of men do we want to train? This requires specifying in a set of aims, which, of course, must not be inconsistent with those of the national educational system. An engineering college, for example, must not train men to be independent-minded if the education system as a whole wants them to be underlings.

Now an institution which strives, for example, to develop self-reliance must institute a system of teacher-pupil relations very different from that of one which does not pursue that aim. Where the atmosphere is one of independence, traditional examinations must be abolished so that, with the help of their teachers, pupils may learn "self-guidance" (1), and pre-digested lessons must give way to much personal research. This involves a whole series of changes.

All this applies also to any other objective. Let us take, as another example, the case of nurses. Are they to be trained to work independently and up to what point? For what medical treatments are they to be responsible? Are they to be immediately employable or are they rather to be capable of constantly adapting themselves to changes? Are they to specialise and to remain always in the same service or are they to be given a general training suited to frequent changes of service?

It is only after answers to all those questions have been given that the content and methods of education can be defined.

(1) See below reference to the problem of self-evaluation.
3. Then comes the turn of the teachers

Every teacher has to settle for himself his objectives at his own level within the general framework of the education establishment in which he works. Let us imagine an institution which has set itself the task of developing initiative and independence. While it is most certainly the teacher's prime function to communicate knowledge so that it may be assimilated by the pupils, he will also have to take part in the general task of developing independence, with consequential direct effects, as we have seen, on the nature of his relations with his pupils and indeed on the very method of communication of knowledge. Furthermore, there may be a personal inclination on his part to develop a particular aptitude. For example, in connection with the mental tools with which he arms his pupils, he may be concerned, if he teaches science, to develop powers of observation or, if he teaches literature or drawing, he may strive to polish the natural means of expression that are latent in each of his pupils.

In stating all the foregoing, our purpose has been to emphasise that, where thought is not constantly and searchingly given to objectives and to the appropriate means of attaining them, it is difficult to go beyond the sole aim of imparting knowledge according to a set syllabus, all the more so because the traditional patterns of culture will press very strongly in that direction. Is it not, indeed, our unconscious aim to train our pupils in our own image and in accordance with the traditional picture of a "cultured person"?

Yet the very idea of a syllabus appears to us, in the circumstances, to be meaningless. What is necessary is to define exactly what one wants to do; for a syllabus will vary with the end that one seeks to attain. In order to clarify this point we shall take four types of objective because they appear to me to be of a general character. Each of them will be made plain by means of concrete examples.

As a first illustration, let us take the case of a scientific subject: statistics. The teaching of statistics can be confined to:

- **information**, by demonstrating that the functional law of mathematics is barely detectable in nature; that the phenomenon of chance is a general phenomenon; and that there are statistical methods of analysing these problems;

- **statistics as a means of expression**, this, in my view, calls for training the pupils to formulate their problems, to present their data as statistical probabilities and to understand the results of a study by a specialist;
- **statistical tools**, by teaching how to use the techniques of statistical calculations; how to draw up and apply plans for investigations; how to process the findings of investigations; how to assess the margin of error;

- **methodological training**, by instructing the pupils in methods of coping with problems that are products of a multiplicity of factors, in the use of applied statistics, in the procedure for testing a hypothesis and in inductive reasoning.

The application of a similar analysis to the teaching, for example, of natural science would show how fundamentally the teaching of that subject in secondary schools could be transformed. (1) The likelihood is that what is at present taught would come to be redistributed as follows: part of it would be definitely abolished - namely, the part which no ordinarily constituted mind can retain for more than a fortnight; another part would be confined to the level of information; a third part would consist in an apprenticeship in the use of the basic terminology (means of expression) for the purposes of defining and describing the phenomena and forms of life in the sphere of the natural sciences; fourthly, use of the tools of these sciences would be taught only to a limited number of pupils, who, furthermore, would be given a choice of tools; an even more restricted field, to be explored by a more or less limited fraction of the total number of pupils, would be that of the methodology of observation and apprenticeship in the process of research.

The foregoing illustrates what we mean by definition of objectives.

4. **Yet the definition of objectives is not the prerogative of teachers alone**

We have already said that pupils are often unaware of the teachers' objectives - hence the idea of instituting discussion on the question of aims between teacher and pupils. This does not imply that the pupils should be entitled to reject the teacher's objectives, let alone what he teaches. We believe, however, quite simply that the primary educational function of the teacher is to explain to the pupil continuously why he is doing what he does because this will strengthen his motivation and above all his understanding. This process of explanation may take the form not only of discussion but even, on occasion, of negotiation between pupils and teacher. In other words, at

(1) The teaching of this subject having been mentioned by way of example, it may be noted that it is beginning to show considerable improvement.
the outset of the course and at least at the beginning of each lesson or series of lessons, the teacher must make clear what he is aiming at, discuss it with the pupils and, while he may impose on them for some time a particular subject or a particular teaching method, it shall be subject to weighing up with the pupils at the end of the series of lessons the disparities between the objectives and the outcome so that they may appraise jointly the teacher's reasons for proceeding as he did.

We are not suggesting here any criticism of the world or society at large but only - which is just as disquieting for the teacher - of the reasons that prompted him in his choice of aims and the means employed to reach them.

This brings us, moreover, to the notion of choice. All educationalists are agreed that the same education is not suited to all pupils, and there should be a system of diversified choices enabling pupils to select the subjects to which they feel most attracted. If the proposed searching discussion of objectives were introduced, it would be with their eyes open that the pupils would make their choice instead of, as is too often the case today, haphazardly or, worse still, by a process of elimination.

5. By way of conclusion

It has been shown that there is a need for a definition of objectives, that is, for a series of definitions at different levels, in which, in particular, those who are being educated would participate, and which would determine the structures, content and methods of education.

III - AT WHAT TARGETS SHOULD THE EDUCATIONAL SYSTEM AIM?

1. A suggested definition

As a definition of education, we propose one which is, we believe, consistent with the view expressed by the Minister of Education, Mr. Edgar Faure, in the "Loi d'Orientations" (Educational Policy Act) namely:

To make every person better able to understand the technical, social and cultural world that surrounds him and to become independent, that is, able to find his own place in his environment and to influence it; for it is indeed by understanding the interplay of the development of society and of his own development that a person can become in a real sense an agent of change.
Side by side with this definition, we would say that the education system must take into account (in ways to be indicated below):

- the requirements of vocational training, as well as the evolution, or dynamics, of these requirements;
- the cultural needs of society;
- our ever-present need to produce some kind of élite.

The school, in the sense of the overall educational system, will have to be for everybody both the means and the place of access to a critical understanding, and hence to the discussion, of culture and social life, as well as to training for an occupation through the acquisition of the knowledge and skills required to make a choice among the wide range of possible careers.

In the performance of this function, the school must strive to form responsible citizens and not passive individuals. The time spent at school must constitute for the pupil some sort of apprenticeship to community life. Through the various parts that he will play in the course of his studies and the responsibility he will assume in the learning process, the pupil must be able to acquire or discover a way of life.

Finally, there must be education also in affective attitudes and in social sense.

Education would be apprehended as an aggregate of activities designed to enable every person:

- to preserve knowledge acquired by relating it to his own life;
- to augment that knowledge with sound information;
- to realise in his vocational, cultural, civic and social life his expectations of advancement;
- to accept change in each of these spheres of life;
- lastly, to develop his personality in his family and social relations.
2. **Education and employment**

In view of the importance of this problem, we think it may be useful to clarify our views.

While it would be most certainly unacceptable for the educational system to "turn out" pupils - young people or adults - wholly without regard for, or in total ignorance of, manpower requirements, it would be exceedingly dangerous, for the following reasons, to give way to the common, if but rarely avowed, temptation to adjust the education system to employment situation, since:

- employment forecasting is not feasible except with margins of error that are all the wider when being made at regional level; yet it is at regional level that they would be of greatest interest;

- contrary to what is frequently thought, it is not feasible to foresee the "demand" for knowledge and skills in the various occupations, such requirements being first and foremost, as was seen above in the case of nurses, a matter of policy and being in any case very difficult to define even where the policy is clear;

- to gear education to employment would be to preclude all advancement and evolution and consequently all possibility of retraining;

- education has many other purposes than that of vocational training.

Hence we cannot admit that education may be subordinated to employment and we shall consider later the solutions which, therefore, must be sought.

It will be shown, in particular, that the solutions must be found, on the one hand, in the education systems but also outside them. Here let it be said that considerable efforts, extending far beyond the scope of the national education system, will have to be exerted in order to improve the status and function of certain occupations, such, for example, as that of technician.
IV - WHY SHOULD EDUCATION BE PERMANENT?

We shall not refer here to all the reasons that can be adduced in favour of permanent education. They can be summed up, however, as follows:

1. **One cannot do everything at school.**

   This is so both because there would be too much to do (hence the desirability of an education which is continued beyond the school and which thus reduces the amount of knowledge that needs to be acquired at school) and because some branches of knowledge and some skills cannot be acquired at school as they call either for facilities that are not available in schools or for a stage of development or experience that only maturer persons can have reached.

2. **Understanding an environment that is constantly changing calls for permanent education**

   To the extent that its content is constantly evolving, it is impossible to arrive once and for all at a critical understanding of culture. This is also true, moreover, of knowledge and skills and, of course, of training for responsible citizenship.

   Permanent education is a means (or rather an aggregate of means) and not an end in itself - a means which a man will summon to his aid at the various stages of his life and development and in each of the private or public positions that he may occupy in society.

V - A BASIC PRINCIPLE: CONTINUITY

Everything that has been said up to this point presupposes radical changes in the content, methods and structures of education but it presupposes first of all the acceptance of a basic principle - namely, that there shall be continuity between the education of young people and the education of adults, a continuity that is real and realised by everybody. Furthermore, every adult must be able to take up his education again at any time at the point where he left off, though he must, of course, also be fully informed of the possibilities and genuinely convinced of the value of doing so.

Young people would step out (though only provisionally) all the more readily of the ranks of education (which perhaps they would not then be overcrowding) if they knew that there were
numerous ways of returning to them again and that, if they had
lost ground in some theoretical subject which they had dropped,
they could recover it in some other subject by putting their
occupational experience to good use. Rather should it be said
that one does not break off one's studies but only changes their
course, that is, their rhythm, their direction and the method of
pursuing them. We shall revert to this point with some practical
applications.

VI - THE FUNCTIONS OF THE SCHOOL IN THE NEW SYSTEM

Outside the exercise of its well-known functions of
imparting learning and of occupational training, which provide
the bases for the development of particular skills, schooling
will have to lead every young person into a progressive acquisition
of self-reliance, especially in regard to gaining knowledge.
Consequently, the school must teach also how to make use of the
means and tools that come to hand, both after school life is
over and during school life, but outside the school: it will be
the function of the school somehow to prepare the adults of
tomorrow both to desire and to be able to continue their education.

It must be added and emphasised, however, that, on the
other hand, there are some components of culture that cannot
be acquired after leaving school or outside the school if there
is no participation on the part of the school and if the school
does not provide the "keys", as it were, to open certain "doors".
We refer here to education in the arts, technology and civic
and social training.

Thus, the school has four functions to fulfil:

(1) occupational training;
(2) providing a basic education;
(3) teaching how to take advantage of out-of-school
possibilities (the parallel school of informal
education);
(4) putting the future adult in a position both of being
able and of wanting to continue to educate himself
after his school life and to further his own development
and the unfolding of his personality.

VII - HOW ARE THESE FUNCTIONS TO BE PERFORMED?

We shall examine successively points 3 and 4 and then
simultaneously points 1 and 2 by considering in each case the
problem of effects on the structures, the content and the
methods of education.
1. Teaching young people how to educate themselves through out-of-school means

The media of mass communication having been developed to the point of disrupting the whole culture of society and, in any case, the whole of education, young people are acquiring information more and more from outside the school but are not trained, except empirically, to make use of it or to treat it critically and selectively.

There falls, consequently, to the school the vast task of teaching pupils how to make use of the out-of-school resources available.

Thus there will have to be a considerable development of education through visual media and of training in reading from the primary school onwards, with consequential repercussions on:

(a) The organisation of education

The teaching will have to be done in rotating periods - periods during which the teacher gives explanations and imparts knowledge, periods when he teaches how to discuss, criticise, select and understand the information given and periods during which the pupils learn how to work by themselves (or in groups but without a teacher). (1) From lecturing, which is his present function, the teacher would turn more and more to a role of technical assistant.

Having learnt how to make use of the educational tools and of the information received, the pupil will become increasingly able to work alone, not only for the purpose of going over and thoroughly grasping a lesson he has followed at school but also for the purpose of studying for himself subjects that he has been told are useful but which are not taught at school.

(b) Methods

The present education system relies mainly on:

- the formal lesson, the pupil having to listen (which means, indeed, to choose, although he is given little help in doing so, just as he is not properly taught how to take notes or to write up what he has heard).

(1) This is particularly important because, more and more frequently, schoolchildren, when they go home, are left either too much or not enough to themselves, so that it is becoming essential for their classrooms to be left open in the evening for them to work in.
practical work, in which the pupil participates usually in a highly standardised manner.

He should be taught in addition - and this would call for special training in the classroom - how to:

- read, that is, how to understand and enter into the written thought of an author, which in turn means how to interpret it himself for himself (1);

- look at a picture and, above all, see it with detachment, for it may often be dangerously captivating (and then the beholder becomes its captive);

- choose and adopt a personal attitude, criticise and select.

Through the right of personal participation and of responsibility for one’s own education, school life will become much more active and at the same time also more democratic.

2. So to educate young people that, when they are adults, they will both desire and be able to continue their education.

The plan that we have been outlining is in itself capable of helping the future adult to educate himself because, in so far as he will have learnt how to use all the out-of-school means of education which will still be available when he becomes an adult, he will be quite naturally impelled and ready to make use of them. There is, however, a need on the one hand to encourage the adult to continue his education and, on the other hand, to enable him to do so.

2.A The problem of "wanting"

It is not possible, of course, to sum up this problem in a word and we would not wish to detract from the capital importance of the objective and real difficulties which adults have to face in order to pursue their education continuously. Nevertheless, in so far as the young person leaving school is, if not determined to discontinue his education, at any rate not very convinced of the advantage that would accrue to him from continuing it, there is little likelihood that he will overcome his difficulties, and, indeed, they will only mount.

(1) We must lay emphasis here on the importance of training in the proper reading of a text (which perhaps plays too large a part in the teaching of literature, making it perhaps too arid, and too small a part in the teaching of all other subjects). Might not the pupils learn at the same time to enjoy reading?
What the school can and must contribute appears to me to be of capital importance: to show young people that education will be useful in enabling them to meet situations arising in daily life. If that end is to be attained pupils will need to be taught throughout their school life to relate the knowledge they acquire to their own experience. (1)

Adult education is at present heavily handicapped because adults are not capable of relating thoughtfully and critically their palpable personal or vocational experience to the new information they receive, which is necessarily more or less abstract. We suggest that it is because the education of the young does not take this sufficiently into account that everything that is new for adults - all knowledge passed on by others - is automatically classed as pertaining to theory. It is because young people are not being systematically accustomed to relate laws to their applications, rules to cases and theory to practice that the young person, once he has become an adult, being no longer able to relate what he has learnt to what he does, can no longer put his knowledge to good use and consequently loses it little by little.

How otherwise can one explain the fact that there are many adults of 25 who can no longer read, in the sense that they do not understand what they read (they do not know the meaning of the comma or the full-stop, the meaning of conjunctions such as because, but, therefore; they stop at the end of a line instead at the end of a sentence) and who can no longer count, in the sense that they do not know the relationship between adding and multiplying? Is it not also for the same reasons that men fall into a routine, losing all power to think and even scorning it, and, observing that all practice becomes obsolescent and that theory is useless, set their faces against both? (2)

(This point has in fact been emphasised frequently in the literature of adult education and is regarded as being demonstrably true. Why is it not taken into account early on during children's education - as if children had no affective life and as if, in the case of somebody who has grown into an adult, he could be expected suddenly to call into service a part of himself that was never brought into play during his childhood and youth? This is perhaps what gives the adult who, for the

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(1) A distinction must be drawn here between the pupil's experience and the teacher's; for when a teacher draws on concrete experience it is often his own, rather than the pupils'.

(2) cf. Study by Mr. Tietgens (page 19), Council of Europe document.
first time since his schooldays, goes successfully through the
test of being able to learn again that marvellous feeling of
revelation, akin to liberation.)

Living and learning must, therefore, be linked together.
How is that to be done? Various prior reforms would be required,
relating to:

(a) **Structures**

Time must be allowed for experience to be extended through visits or work in common (care being taken, however, to prevent a scattering of effort).

(b) **Content of education**

Since all subjects do not lend themselves equally well to relating theory to experience and since children do not all react in the same way, the choice of subjects will have to be diversified so as to take circumstances into account. In particular, one explanation of the non-democratisation of education lies unquestionably in the fact that some subjects that are regarded as fundamental and which constitute the backbone of education are too remote from the actual experience of certain children - as in the case, surely, of classical literature for some children of farmers or manual workers. The approach and the slant given need, therefore, to vary from child to child.

(c) **Methods**

The problem is to know how to make use of childrens' experience and how to ascertain what it is.

There are in fact two ways in which experience can come to light and reveal itself so that it can be put to use, namely:

- Through the questions which children put. Yet it very often happens not only that the questions are not listened to or not heard and thus remain unanswered (either because of unwillingness or because of inability) but that even more often other questions of which they grasp neither the meaning nor the purpose are put to the children. This is all the more deplorable, as well as unnecessary, when the questions relate to "live" subjects such as the physical sciences, the natural sciences or geography. The questions put by the teacher are often of this type: "Given this, you are asked to find that". Yet, in real life, not only is nothing "given" but also nothing is asked. On the contrary, in any situation in which one may find oneself,
one has to put oneself questions that are not "given." The creative faculty and the imagination are trained much more effectively by thinking up for oneself a problem and by finding out for oneself the data and the unknown factors than by solving problems set by others.

Through an analysis of the "ideas" that children have about the phenomena of their environment that is, of the mental pictures they have of them and which are more or less different from the facts. (For example, an idea that is frequently encountered is that weight is "due to the air that presses on an object").

To take no account in education of these "ideas" very often means, as is proved by experience, not only that they are retained even after leaving school but that they are held even more tenaciously, albeit unconsciously, because the pupil picks out from what he hears that which is consistent with his own mental picture. To say the least, to hold such "ideas" is to put a brake on one's education whereas an open and systematic discussion of them makes, on the contrary, an excellent starting point for the processes of conceptualising and assimilating knowledge. Any "development" has to "start from" somewhere.

The more teaching is linked to the learner's mental pictures, which are the intellectual reflection of his experiences, the better the chance of developing his personality.

Culture can be described as a structured and organised system comprising parts that are not independent of one another. This close interdependence reveals itself thus: every new fact is either immediately assimilated or, on the contrary, rejected or modified before being assimilated; and, if it comes into conflict with the most fundamental elements of that organised system, the new fact may well destroy culture.

2.B To train young people in such a way that, once they are adults and have left school, they will be capable of continuing their education

This is a problem of method, but also of content.
At present, the basic subjects taught are only the humanities or the sciences. To be more precise:

- in the case of some pupils, education does not in fact consist of anything else right up to the end of secondary school,

- in the case of others and in spite of the movement towards despecialisation, (replacing the Certificat d'aptitude professionnelle by the Brevet d'études professionnelles), it is vocational at a very early stage.

The need to extend the area of basic education in the three directions of the arts, technical training and civic and social training cannot be over-emphasised. This means adding subjects to the school curriculum.

How much time would be left, however, for the subjects that are being taught today? By how much should the time at present available for these subjects be reduced, taking into account the fact that a considerable amount of time would be devoted to training in methodology and in the use of out-of-school educational media?

In practice, two factors would enable teaching time to be reduced:

- as education would be permanent, it would be possible to defer the teaching of a certain number of syllabus items which are now normally taught at school;

- moreover, the teaching of a syllabus along the lines described in connection with the definition of the objectives of teaching should enable considerable time to be saved by dropping certain items altogether and giving others less thorough and less encyclopaedic treatment (1).

At all events, if young people receive no artistic, technical, civic and social education, their out-of-school and post-school education runs every risk of being deeply affected thereby.

(a) Education in the arts

Without wishing to go into the question in detail, we would say with Bourdieu that the desire for culture springs from education and we would stress that the national education has an important part to play in cultural development.

(1) To admit that many of the items taught could be dropped from the syllabus simply because ultimately they leave no trace is surely to commit the dreadful crime of lèse-culture.
The school should do its utmost to enable every child to discover its own tastes and potentialities in the whole field of the arts. This implies that responsiveness to the arts must be awakened in every child and that, apart from a trained sense of appreciation of all the arts, every child must be taught how to select among the various forms of art—just as in the case of any other choice—the one which is best suited for his personal development.

There is no question here of going into details of method. We would say only that there is not just one method of learning to appreciate an art and of educating oneself in that art and that in no circumstances should the process of education in the arts overshadow or precede the awakening of responsiveness. Whereas in France many people are regarded as poorly gifted for drawing or music, Japan, for example, has reached a point, thanks to the diversity of its methods and the special effort that has been made, at which nearly all children can draw well and are fond of drawing and also deeply enjoy music and the theatre. And how could one not be struck by the passion for reading shown by young people in Japan, where the bookshops are full of young people standing about reading free of charge for hours at a time?

(b) Technical education

We have already stressed the capital importance of linking theory to practice. It seems essential that, in the course of their school life, children be given a "technical" education of a kind that "links together manual, experimental and abstract work".

This would preclude situations where:

- many children whose studies have been confined to the sciences or the humanities have no knowledge of technical subjects and so despise them;

- other children who, because they are not thought gifted for the humanities, are guided towards technical subjects instead of being allowed to choose them by preference, in the case of some, or, in the case of others, being encouraged to look for such fields as would please them better.

If all children were taught technical subjects, the type of education each would choose would be governed not by failure, but more by individual tastes and ability.
(c) Civic and social education

This would be based on the study of certain fundamental problems but should consist above all of training in a sense of responsibility.

What methods should be adopted for teaching how to learn?

This problem alone would call for such detailed examination that we can do no more than just touch upon it. We shall draw attention only to those points that appear most important:

- To each objective there are one or more corresponding methods, which is an additional reason for defining one's objectives. For example, for the purpose of imparting information, the audio-visual method and the lecture are particularly well suited. For developing a "means of expression" (in the sense that we have already defined), an opening presentation followed by group discussion is a good method. Only repetition and individual work can confer a grasp of a tool, while training in methodology involves criticism of the method itself.

- The taboo on talk about school in school must be abolished. The pupils must be shown how to look constantly and with a critical eye at their own training and how to analyse it.

- Finally, evaluation of the results would no longer be the prerogative of the teacher but would have to be undertaken jointly with the pupil. Everything must be done to replace evaluation by self-evaluation in the sense of "enabling the pupil to assess himself continuously and to analyse his own mistakes". This obviously does not mean that the pupil marks his own work nor that the teacher is to abstain from telling the pupil what he thinks. What it does mean is that teacher and pupil examine together the pupil's difficulties and inadequacies and discuss how he can make better progress. In this way self-evaluation becomes an indispensable educational process and can become meaningful only if pupil and teacher have properly defined and integrated the objectives to be jointly attained.

It is to be noted that it would still be, of course, for the teacher to issue the certificate of attainment at the close of a given stage of learning but, where work was done in comparatively small groups (25 at most, 15 if possible), examinations could be replaced by a really continuous process of evaluation and, in cases of "disagreement" between pupil and teacher, the pupil would be entitled to appeal, as it were, by sitting for an examination under another teacher.
3. **Vocational training and fundamental education**

If we deal with these two questions simultaneously it is precisely because they do not appear to us to be separable if they are put together under the heading of "education". We mean by this that vocational training and fundamental education are functions much more of method than of content: a vocational subject can contribute to a person's general education while an arts subject might help towards learning a trade.

Putting aside, then, questions of method,

(a) **It is the organisation of education that is all important here.**

We put forward the following suggestions:

- Every two to three years from the age of 14 onwards a pupil should be able to obtain a diploma and reach a certified grade.

- The diplomas would open the door to occupations while the grade certificates would be a recognition of a level of attainment. The diploma would thus certify the attainment of a certain educational level as well as the acquisition of an occupational qualification.

- Every pupil or adult holding a diploma or a certificate of the same level should be able to take up his studies again at any time (1), either in order to work for a diploma at the same level or in order to raise his level and obtain a higher certificate.

- At each level there need to be numerous and widely diversified diplomas.

- To pass from one grade to a higher one, a pupil would need to give proof of competence in a certain number of units of education. Vocational training would itself be made up of units. The units could be accumulated and the order in which they could be obtained, without being wholly unsystematic, would be elastic enough to enable young people to pursue the education that best suited at any time their intentions, their abilities and their experience.

- The common trunk of all diplomas and, later, families of diplomas, would constitute the main core of education continuous from base to summit from which the vocational branches would stem.

(1) Or, if need be, after a short refresher course.
Each stage would include a compulsory section of the main core, a number of optional subjects and at least one personality-developing activity.

The whole educational system would be thus divided into units, with each diploma corresponding to a group of units.

This system should enable every pupil from the age of 14 or 15 onwards to decide at any time and at any level to depart from the common trunk in order to obtain a particular diploma as an attestation of the quality of his work so that he can leave school (whenever he so wishes after the legal age) with the possibility of returning to it at any time and finding, as it were, the train waiting for him at the station where he got off.

The reform of educational structures might be carried much further, however, by abandoning the unit of time - the school year - and the unit of the school class and replacing them with a system of curriculum units being studied by groups of pupils with their own individual rates of progress.

Instead of the present system under which all children of the same age-group are put into the same class in order to learn every subject at a uniform speed and may move up from one class to another only when they have qualified in all subjects, the pupils would be divided into groups for each subject so that a pupil might well be in the fourth form for mathematics and in the second for his mother tongue (1). Thus each group would be self-contained and would have its own rhythm (in practice there would be two or three speeds). These groups would be, moreover, self-contained not only in their rate of progress but also in their choice of method.

(b) What then would be the content of the units of education?

In the paragraph on objectives, we arrived at a proposal for several categories of objectives - namely the acquisition of information, means of expression, tools and methodology.

Reverting to this classification, we would say that in some units information would predominate, in others means of expression, in others again the grasp of a tool and in yet others methodology.

(1) Cf. study by Mr. Janne, Council of Europe document (page 9).
The units to be studied for the attainment of a "grade" would consist of sections of basic subjects or of technical subjects. The extra units to be studied in order to obtain a diploma would be of a vocational nature.

Some basic or technical units would be common to all diplomas, others to families of diplomas, while yet others would be entirely "free".

Three examples will serve to illustrate the foregoing:

- There would be few differences in the units required for teaching the natural sciences and those required for a biologist's training. The few additional units — those that would qualify for the teacher's diploma in natural sciences — would consist in learning how to teach the natural sciences.

- Two students who had studied heat, thermo-dynamics, electricity, mathematics and chemistry could at a certain point diverge as follows:
  
  one of them to become, say, a thermal engineer, would then take, for example, a unit of industrial thermics, a unit of sociology, a unit of economics and a unit of resistance of materials,

  the other, to become, say a physics teacher, would take a unit of educational method and various units of physics (units that he would not have already taken but which would now be treated, not as methodological but as vocational units, that is to say more rapidly and less thoroughly).

- In the present course for the Brevet d'études professionnelles (BEP) for electricians, there are subjects such as drawing, electrical measurements and technology which are wholly specific to that diploma. The proposal is that these subjects should be turned into general methodological units (which, moreover, would draw their examples both from electricity and from other branches); and it would be later, with their vocational units, that the pupils would learn what is specific to their chosen career.

The subjects of the common core would be modified in three respects:

1. Three subjects would be added (art, technics, civics).
2 - The content of each subject would be revised in the light of a definition of the unit objectives.

3 - The fact that there would be continuity all the way from the primary level to higher education level should give rise to a reconsideration of the whole content of education and its distribution.

There are a few more points to be noted:

- In order to achieve greater concentration of effort, too many units should not be taken in any one year.

- After a certain age, it might be well to work on the same subject for two or three hours at a time, though this does not mean that there would be no break nor, in particular, that the objective pursued and the method used would be the same for the whole at that time.

- The efficacy of vocational units would be improved if pupils who had recently the corresponding diploma were to take part.

- In a more general way, it might be very valuable to allow parents to attend classes (though perhaps subject to the condition that they do not attend the same ones as their children). This would be a striking way of promoting permanent education.

(c) Critical appraisal

By reason of its flexibility and of the real responsibility that it would give pupils for their own education, such a system should enable every pupil to ascertain at any time how far he has progressed and to make sure that he progresses.

Moreover, the system would contribute largely to a solution of the problems of employment and of selection, for, if, on the one hand, pupils, students and adults could ascertain at any time the estimated employment requirements and if, on the other hand, they could at any time readily change their occupation by taking this or that additional specialised unit, the risks of disparities between manpower supply and demand would be very small. Furthermore, the problem of selection would be solved to the extent that pupils, students and adults would really be able at any time to leave, return, change and take up again. We can then, as we have seen,

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suppose that they would leave their university less apprehensively; for people leave school more readily if they know that they can go back there and above all that, if one has left at a given stage, it is not as a person who has "failed in something" but, on the contrary, as a future applicant for admission to some other course or a person ready to embark on some career.

Nevertheless, this system is, of course, open to many criticisms, which, indeed, it is important to know if they are to be met.

Here are a few of them:

- The highly complex task of organising large numbers of small units. Yet what should be noted is that in fact the more pupils or students there are the less difficult is it to solve this problem; for only large numbers make individualisation feasible. (In the case of smaller educational establishments, is this perhaps impossible and would we have to lower our sights?).

- An anti-democratic process of selection might be feared in so far as groups of slower pupils would consist especially of those who, owing to the circumstances of their life, would have been less well prepared so that there would be a social sifting at the outset. It would be, however, the very purpose of differential educational methods to see to it that pupils did not remain slow. It may be supposed, moreover, that there is no reason why pupils should be slow in all subjects; they are more likely to be slow in some subjects and quick in others.

- It might be feared that the education thus given in small self-contained groups might lead to a narrowing of horizons and a fragmentation of culture. In order to limit this risk, subjects should not be separated but grouped.

VIII. THE IMPLICATIONS OF THESE PROPOSALS

1. The role of information and guidance

It is clear that information and guidance have a capital role to play - information in order to enable every student, young or adult, to know what the employment situation is and guidance, (which would become a constant function of education) in order to enable everyone to find his place himself in relation to others and to his own progress.
2. **Role and training of teachers**

The role of the teacher would be entirely changed and teacher training would acquire an importance so great as to be difficult to evaluate. The teachers' own lives would be radically modified if only by reason of the influence they would be called upon to exercise in their own community.

3. **Buildings**

It is clear that the whole question of school buildings would have to be reviewed.

IX. **HOW IS ALL THIS TO BE STARTED?**

If proposals such as these were not rejected outright, they would have to be subjected to prolonged and thorough consideration even before being publicised, for, stimulating though they may be, some of them are probably utopian.

In that case there would be three stages to follow.

1. **A stage of study which would last one year**

Study groups should be set up to consider:

(a) **Content**, both horizontally, that is, by subjects, in order to see how they could be defined afresh by adopting, or modifying, our suggestions as to objectives, and vertically, that is, in order to determine how the continuum running from the primary school all the way to the university could be established. We may note in this connection that it would be indispensable to prevent primary, secondary, technical and higher education establishments from working independently of one another. It is for this reason that vertical studies would be needed, because primary education still has, perhaps unconsciously, too often the *Certificate d'Etudes primaires* (CEP) as its final target and is still too much of a closed system.

(b) **Structures of the units, diplomas, courses and classes.**

(c) **Methods**, both as regards subject teaching and making use of out-of-school media.
2. **An experimental stage which would last for several years**

The task here would be to try out experimentally what would have been proposed in the course of the first stage.

It may be noted that this stage would cover:

- the training of teachers along the lines of the proposed reforms, since strictly speaking no teacher would yet have been prepared for them;

- reorganisation of the structures of educational establishments so that they would cease to stand in the way of the new system of education it is sought to set up;

- a study of the "upstream" and "downstream" effects, as it were, of each feature of the proposed reform.

3. **Stage of systematisation**

All that can be said on this stage is:

- that it is probable that many principles would have to be modified in the light of experience and that what is required above all is to devise structures that by their nature can be the constant subject of critical appraisal;

- that it will be necessary to embark simultaneously on the development of adult education.