

education, as regards its main subjects, there must always, I suppose, be more or less of a compromise between educational principle and considerations of immediate utility. But here is a department of school work into which these considerations need not enter, and accordingly, strange as it may seem, it is precisely in this subject of manual training, of all others, that we may hope to see educational principle most fully exemplified.

To accomplish this certain conditions must be fulfilled, of which I shall mention only the most important:—

- (1.) It will be necessary that the pupil be as far as possible his own teacher, and the work he does in every sense his own. The teacher must to a great extent efface himself, and while giving general direction to the work, and information and advice where needed, he must be careful to avoid premature help. On no account must he do any part of the work of the actual model on which the pupil is engaged.
- (2.) It will be further necessary that the work be of such a nature as to secure the interest of the pupil, but I have already given reasons for believing that this will be an easy task.
- (3.) The nature of the work must correspond to the age and strength of the children.
- (4.) It should be so graduated that at each stage the pupil will have fresh difficulties to encounter, for which, however, his previous experience should have in some degree prepared him. It is very largely on this point of graduation that the merit of one system as compared with another depends.
- (5.) At each stage, according to the capacity of the children, a higher and higher standard of accuracy must be set, otherwise the work will lose much of its disciplinary effect.
- (6.) There must be no attempt at class-teaching in the ordinary sense. Each pupil must be allowed to advance at his own natural rate of progress. The slow must not be unduly impressed, nor the smart kept marking time.
- (7.) Lastly, I would urge very strongly that teaching of this kind should never be regarded as an end in itself, but should always be considered in its effects direct or indirect on other school studies. The place it occupies in the school curriculum, and the manner of teaching it, may very well be taken into account in forming a general estimate of the work of a school, but it is not desirable that it should be made the subject of a *special* grant. For with the special grant emphasis would naturally be laid upon the visible and tangible result, the amount of work done, rather than on the disciplinary effect, or its due relation to other school studies.

If the conditions I have enumerated are fulfilled, we might expect manual training—or, as it would be in that case, sloyd—to develop in the pupils an individuality, an independence, and a self-reliance which would be most valuable correctives of the evil effects of class-teaching, while it would at the same time exercise their mental faculties in a degree little inferior to other school studies, and in a more concrete and practical way.

Let me now put in summary form the advantages which might be expected to result from making sloyd—or manual training conducted in the way and under the conditions just mentioned—an integral part of the curriculum of the elementary school.

We should secure a direct result valuable in itself—viz., increased dexterity of hand in children, in greater or less measure, according to the time spent upon it. But we should secure an indirect result of still greater importance, inasmuch as we should turn to educational account a great natural force, the interest which children have in making things, and cause it to contribute toward their *intellectual* education, and specially toward the development of certain qualities of mind and character which should go some way to counteract the evil effects of class-teaching. And in securing these results we should at the same time be acting in the interests of a complete and well-balanced education.

I turn now to the practical question of its introduction into schools. First, let me state explicitly, what I hope has been sufficiently implied in the preceding remarks, that the measure of the introduction of manual work into schools must be the measure in which it conduces to increased efficiency in the general work of the school, and specially in the standard subjects. It is, I think, well understood in the schools of this district that no amount of extra work of this kind can compensate for deficiencies in the fundamental subjects. Having regard to this general condition, can we say that there is room for the additional subject in the school time-table? That is a question which experience alone can answer. But in the schools of this district, and particularly in the schools under the Edinburgh Board, there has been gradually accumulated a fund of experience which enables a pretty decisive answer to be given as regards certain stages of the school, at all events. It will be convenient to consider the case of the infant-school and of the juvenile school separately.

I. Infant departments (including Standard I.): As regards these, the difficulty of the time-table has been amply, I may say, brilliantly solved. During the last four or five years the serious treatment of kindergarten occupations has spread from a very few schools to practically every school of any size in the district. The time devoted to work of this kind has gradually increased. In some schools, and these not the worst, it engrosses, together with object-lessons, singing, and drill, practically the whole of the afternoon time-table for the younger children. Now, all this has been done not only without loss of efficiency in the ordinary subjects, but with positive gain. Comparing the work done now in such a subject as arithmetic, for example, with the work done in the same subject in the same schools four or five years ago, I have no hesitation in saying that it is greatly more intelligent and more effective. This is also, I believe, Dr. Kerr's opinion, and similar opinions might be gleaned from blue-books wherever there has been opportunity for making the comparison. As a rule, too, it is precisely in those schools where this kind of work has been most developed that the work in ordinary subjects is found to be most efficient. But perhaps the most remarkable thing is that even as regards the bare *amount* of work done there has been no falling-off. I have paid particular attention to this point, because mistresses, in proposing an