

them, whether their utility be direct or indirect, merely as tools. The accumulation of a mass of facts is not education.

"Men have oft grown old among their books

To die case-hardened in their ignorance."

Case-hardened because they made the accumulation of facts the ultimate goal and stifled their adaptability under a plethora of undigested facts. And, let me repeat it, the ideal of education is the development of adaptability. It is not a mastery of the classic languages and literatures, it is not a fluent facility in modern tongues, it is not a thorough knowledge of the facts of history nor of the facts and hypotheses of this or that science. Each of these is a valuable possession and means power if, and only if, with their possession, there goes a knowledge of how to make use of them in adapting to the environment in all its complex forms one's self and those for whom one has assumed responsibility. Back of the facts lies the method. Useful as the facts may be, much more useful, because more generally applicable, is the acquisition of the scientific method. The education that succeeds in making the scientific method a habit is indeed successful. All the facts that may be required by any one individual cannot be taught, but if the scientific method has become a habit, he will seek out the facts for himself, he will study their significance and he will draw conclusions as to how he may best adapt himself to the conditions of which they are the index. He will have learnt the true value of facts as means to an end rather than the end itself. He will appreciate the necessity for keen observation and the careful assembling and comparison of his facts. That is the method of the successful business man and it is also the scientific method.

My thesis then is that the value of science in education is its value as a means of developing the scientific method, and that the development of this method as a habit should be the ultimate aim of education. Whether in the primary school or the university the laying of a broad foundation should be the purpose of the teacher. The pupil cannot always remain a pupil; sooner or later he must build for himself, and he must build on the foundation that has been laid down during his pupilage. The responsibility for that foundation rests upon us teachers, so let us see to it that we make it broad and firm by making it the development of the powers of adaptability. Nature teaches us that potentialities for adaptation constitute the essential for success in the struggle for existence, and we have the right to assume that in the struggle for existence and for progress in which we are all engaged, what is needed is keen observation, clear thinking, and logical conclusions, that we may successfully adapt ourselves to the conditions that now are and later will be confronting us.