

A professional education, on the contrary, should develop specially those organs of the body and powers of the mind which are called into exercise in performing a special kind of work, and should include so much professional knowledge as will fit the person to perform this special work in the most intelligent and efficient manner.

#### FACTORS AND PRODUCTS OF EDUCATION.

2. In whatever manner education may be conducted, there are three factors involved, namely, the teacher, the pupil, and the instrumentalities by which the teacher affects the pupil. The ward teacher in this connection is used to include any agent who directs and controls the instrumentalities by which the pupil is affected, hence the parents and the pupils themselves are included. When a pupil becomes his own agent in directing his physical and mental development; the process is very properly called self-education. Through the joint operation of the three factors named, the pupil should be made the recipient of four distinct products; namely, increase of power, right habits, increase of knowledge, and a correct and elevated taste. To guard against wrong impressions from the position just stated, let me say that each of these four products have reference alike to our physical, intellectual, and moral or spiritual natures. When speaking, for example, of increase of power as an educational product, physical, intellectual, and moral or spiritual power are all included. We maintain that the development of a true and noble manhood is possible only as the three departments of our nature are symmetrically unfolded.

3. Having indicated very briefly what education includes, and the factors and products involved, we are now in a position to state how much can be properly meant by "Inductive and Deductive Methods in Education." And first let us note the relation of these methods to each other. Induction and Deduction are separate mental processes, and as such, each constitutes one class of mental work. They are, however, separate only in the sense of parts of one whole. Each is dependant upon the other, and no symmetrical development of mind is possible when a proper training in either process is neglected.

Again Induction and Deduction are separate methods of investigating truth and of acquiring knowledge. In this case, also, they are separate only in the sense of being parts of one whole. Each has its peculiar place, and the use of each in its place is the only course that can be pursued in the investigation of principles and laws, and in the pursuit of knowledge. Hence, "Inductive and Deductive Methods in Education" are inseparable, neither can be substituted for the other, and neither can be omitted without fatal injury to the pupil.

But to be more specific, the view generally known as the Inductive Method in Education is imbodyed in the maxim, "The mind proceeds