

I. The principles of education are not to be devised *ab extra*; they are to be sought for in human nature.

II. This nature is an organic nature—a plexus of bodily intellectual, and moral capabilities, ready for development, and struggling to develop themselves.

III. The education conducted by the formal educator has both a negative and a positive side. The negative and a positive side. The negative function of the educator consists in removing impediments, so as to afford free scope for the learner's self-development: His positive function is to stimulate the learner to the exercise of his powers, to furnish materials and occasions for the exercise, and to superintend and maintain the action of the machinery.

IV. Self-development begins with the impressions received by the mind from external objects. The impressions (called sensations), when the mind becomes conscious of them, group themselves into perceptions. These are registered in the mind as conceptions or ideas, and constitute that elementary knowledge which is the basis of all knowledge.

V. Spontaneity and self-activity are the necessary conditions under which the mind educates itself, and gains power and independence.

VI. Practical aptness, or faculty, depends more on habits gained by the assiduous oft-repeated exercise of the learner's active powers, than on knowledge alone. Knowing and doing (*wissen und können*) must, however, proceed together. The chief aim of all education (including instruction) is the development of the learner's powers.

VII. All education (including instruction) must be grounded on the learner's own observation (*Anschauung*) at first hand—on his own personal experience. This is the true basis of all his knowledge. The opposite proceeding leads to empty, hollow, delusive word-knowledge. First the reality, then the symbol: first the thing, then the word; not *vice versa*.

VIII. What the learner has gained by his own observation (*Anschauung*), and, as a part of his personal experience, is incorporated with his mind, he *knows*, and can describe or explain in his own words. His competency to do this is the measure of the accuracy of his observation, and consequently of his knowledge.

IX. Personal experience necessitates the advancement of the learner's mind from the near and actual, with which he is in contact, and which he can deal with himself, to the more remote; therefore from the concrete to the abstract, from particulars to generals, from the known to the unknown. This is the method of elementary education; the opposite proceeding—the usual proceeding of our traditional teaching—leads the mind from the abstract to the concrete, from generals to particulars, from the unknown to the known. This latter is Scientific method—a method suited only to the advanced learner, who, it assumes, is already trained by the Elementary method.

These principles, though never thus formulated by Pestalozzi, are logically deduced from his theory. With some qualifications, they form the basis of the Lectures which I have been delivering here to large classes, for the last two years, on the Science and Art of Education, and will be expounded and illustrated in the Course which is now beginning. (*London Educational Times*.)

## Culture of Teachers Outside of their Professional Work.

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[From a paper read before the Michigan State Teachers' Association.]

Teaching is as much of a business as any other occupation, and much more of a science than most. A careful attention to the principles which underlie it, and a study of the laws of mental growth of which it furnishes so many and varied illustrations, are certainly ennobling and expansive, and are in themselves a true culture. But here are two evils belonging to the profession, and they belong to the highest as well as the lowest positions. What is the remedy? Will the cure be found in the business itself or outside of it? I think *outside*. I hold that a teacher may legitimately follow his business. The teacher should do the work of the school-room, as the merchant does his work, and as conscientiously and faithfully, and as cheerfully in one grade as another. Do it as a business, and not rely upon the school for culture; but along with the school-work keep up some systematic, outside effort. The merchant or banker who devotes his entire energies, time, and thought, to the details of his business, sinks the man in the business, and so will the teacher.

The need of culture outside of the profession may be further shown by continuing the comparison and considering the consequences of narrowness. The merchant may be as narrow and contracted as possible, and the influence of his narrowness, confined to a small circle, affects chiefly himself, and the harm, to a great extent, is negative. But a teacher who is a small pattern of manhood exerts an influence on youth at its most impressible time, and the damage is positive. That the community at large do not always see this when they hire teachers of low culture at low wages does not affect the truth, nor should it lessen the desire of teachers to advance their culture.

Again, the teacher with outside culture, who knows more than is contained in books, and more than examinations require, is by this much a better teacher. Culture is never lost; it fertilizes the teaching power; it adds to mere instruction a wealth of illustration that illuminates obscurities and clears up difficulties; it tells on the character of pupils, and in the long run, depend upon it, will tell on the worldly prospects of the teacher.

The need of the culture of teachers outside of their professional work is two fold. First, the schools need it, that pupils may have the benefit of soul-full instruction, and not the mere humdrum of the text books. Second, the teachers need it, that they may stand before schools and communities, not as mere pedagogues and pedants, but with the trained intellects and rounded characters of cultivated men and women.

The two great hindrances to outside culture are lack of time and lack of inclination. It seems to me that our graded system, if properly understood and worked by the teacher, gives the needed time. I am aware of the demands made upon teachers for reports and preparation for classes, and, on the part of our lady teachers, for the making and repairing of the modern wardrobe; yet making all allowances, I know there is time for outside culture. It has been well said that "an earnest purpose finds time or makes time. It seizes on spare moments and turns larger fragments of leisure to golden account."

Disinclination may spring from two causes. The importance and desirability of this culture may not be appreciated, or the nervous system of the teacher may be so prostrated by the work of the school as to reduce the vital energies to such low ebb that ambition for im-