

## BOOK REVIEW

**Author** – Alfred North Whitehead

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**Reviewer** - Beena Indrani

This book contains ten addresses or papers delivered by Alfred North Whitehead at different times between 1912 and 1928. The general theme of this book is “education on its intellectual side”. These ten addresses are – The aims of education (14pp.), The rhythm of education (13pp.), The rhythmic claims of freedom and discipline (14pp.), Technical education and its relation to science & literature (18pp.), The place of classics in education (16pp.), The mathematical curriculum (14pp.), Universities and their function (12pp.), The organization of thought (18pp.), The anatomy of some scientific ideas (34pp.) and Space, time & relativity (10pp.).

One main idea runs throughout the volume: “The students are alive, and the purpose of education is to stimulate and guide that self-development”. The corollary of this idea is that “teachers also should be alive with living thoughts”. In short, the whole book is a protest against dead knowledge, that is to say, against inert ideas” (Preface, pp. (v)).

The first chapter begins with a definition of culture: “Culture is activity of thought, and receptiveness to beauty and human feelings”. Whitehead said that the educator must avoid at all costs “education with inert ideas- that is to say, ideas that are merely received into the mind without being utilized, or tested or thrown into fresh combinations” (pp.1). Whitehead insists that the child should be taught few but important ideas, in such a way that he can “make them his own” and utilize them. Utilizing an idea means “relating it to that

stream, compounded of sense perceptions, feelings, hopes, and desires and of mental activities adjusting thought to thought which forms our life” (pp.3).

He advocates the development in students what he calls “the most austere of all mental qualities ... the sense for style”, that is “an aesthetic sense, based on admiration for the direct attainment of a foreseen end, simply and without waste ...” Style, in the finest sense, is the last acquirement of the educated mind; it is also the most useful. Style is the ultimate morality of mind. (pp.12) Whitehead says with style your power is increased, for your mind is not distracted with irrelevancies and you are more likely to attain your object. Now style is the exclusive privilege of the expert. Style is always the product of specialist study, the peculiar contribution of specialism to culture. Whitehead says the machinery of our secondary education is rigid. Every school is bound on pain of extinction to train its boys for a small set of definite examination. No headmasters have a free hand to develop his general education or his specialist studies in accordance with the opportunities of his school, which are created by its staff, its environment, its class of boys, and its endowments. Whitehead suggests that no system of external tests which aims primarily at examining individual scholars can result in anything but educational waste (pp.13). Whitehead appears ready to help the reader out of this perplexity when on page 14 he says that “the essence of education is that it be religious”. By this Whitehead means “an education which inculcates duty and reverence”.

Thus the several worthwhile points Whitehead makes- for instance, his insistence that “no absolutely rigid curriculum” should be imposed on schools, but rather each school as “the educational unit in any national system”,- are weakened, if not even vitiated by his idealism and lack of clarity about the true end of education, even on the strictly human level.

In the second chapter Whitehead discusses the question: at what age should students undertake different subjects and different modes of study? He identifies three different stages or rhythms in educational methodology that happens in tandem and in rotation. These stages are based on Hegel’s analysis of progress into Thesis-Antithesis-Synthesis. Whitehead asserts that the stage of mental growth- life being essentially periodic and even cyclical. The cycle may roughly analyze into three: the stage of Romance, the stage of Precision and the stage of Generalization. The stage of precision comprises the whole school period of secondary education. University education should be mainly concerned with the third stage. In romance, the teacher needs to wake the sense of wonder and curiosity in a student’s mind. This will

provide the impetus to pursue the learning to the next stage: precision. In the second stage, the student studies by drill and repetition the formulae, rules and grammars that build upon a thorough knowledge of a field. In the third stage, Whitehead declares that the student needs to move into a realm of generalization. In this rhythm student makes connections, applications and full, mature usage of the material and ideas.

In the third chapter, Whitehead emphasizes that the aims of education is wisdom, not knowledge. But it becomes clear that Whitehead's conception of wisdom is more aesthetic than intellectual or moral. Wisdom is the way in which knowledge is held. Freedom and discipline are the two essentials of education. The pupil's mind is a growing organism. On the one hand, it is not a box to be ruthlessly packed with alien ideas and on the other hand, the ordered acquirement of knowledge is the natural food for a developing intelligence. The aim of an ideally constructed education is that the discipline should be the voluntary issue of free choice, and that freedom should gain an enrichment of possibility as the issue of discipline. The two principles, freedom and discipline, are not antagonists, but should be so adjusted in the child's life that they correspond to a natural sway, to and fro, of the developing personality (pp.30). In a key passage (pp.40) he says: "The ultimate motive power, alike in science, in morality and in religion is the sense of value, the sense of importance. It takes the various forms of wonder, of curiosity, of reverence, of worship, of tumultuous desire for merging personality in something beyond itself... The most penetrating exhibition of this force is the sense of beauty the aesthetic sense of realized perfection". Our aesthetic emotions provide us with vivid apprehensions of value. The claim for freedom in education carries with it the corollary that the development of the whole personality must be attended to. Whitehead says, "History shows us that an efflorescence of art is the first activity of nations on the road of civilization".

In the fourth chapter Whitehead criticizes the Post-Renaissance Platonist tendency to split the mind from the body and emphasizes the great importance in education of linking theory to practice. He praises the early Benedictine monks "who saved for mankind the vanishing civilization of the ancient world by linking together knowledge, labor and moral energy (pp.58). He emphasizes that "essentially culture should be for action, and its effect should be to divest labor from the associations of aimless toil (pp.47 & 48). He criticizes the parasitism of the academic world: "The second handedness of the learned world is the secret of its mediocrity. It is tame because it has never been scared by the facts".

Several valid and worthwhile points, Whitehead reveals his naturalism, in this case under the form of the theory of evolution: “It is a moot point whether the human hand created the human brain, or the brain created the hand (pp.50)”. And “In the contest of races which in its final issues will be decided in the workshops and not on the battlefield, the victory will belong to those who masters of stores of trained nervous energy, working under conditions favourable to growth (pp.58).

In the fifth chapter Whitehead had a high appreciation for classical Greek and Roman civilization and for its educational value as a field of study. In particular he sees the study of Latin as “the best stimulus for mental expansion and the study of the history of Rome as the principles key to understanding European civilization. The vision of Rome is the vision of the unity of civilization (pp.74-75)”.

Whitehead considers that the special merit of the study of Roman civilization “in the education of youth is its concreteness, its inspiration to action and the uniform greatness of persons, in their characters and their staging”. Their aims were great, their virtues were great. They had the saving merit of sinning with their cart-ropes”. Whitehead main point is that: “Moral education is impossible apart from the habitual vision of greatness” since “the sense of greatness is the groundwork of morals (pp.69)”.

The life of men is founded on technology, science, art and religion. All four are interconnected and issue from his total mentality. But there are particular intimacies between science and technology and between art and religion. The key to modern mentality is the continued advance of science with the consequential shift of ideas and progress of technology (pp.72). The whole claim for the importance of classics rests on the basis that there is no substitute for first-hand knowledge.

In the sixth chapter Whitehead again exhibits his acceptance of the theory of evolution, viz.; “- for the human mind was not evolved in the bygone ages for the sake of reasoning, but merely to enable mankind with more art to hunt between meals for fresh food supplies”. Most part of this chapter is an explanation of how the mathematical curriculum should be and can be an excellent training in logical method.

In the seventh chapter Whitehead sees the justification for a university in its capacity to preserve “the connection between knowledge and the zest for life, by uniting the young and the old in the imaginative consideration of learning... (pp.93).” Thus the whole point of a

university, on its educational side, is to bring the young under the intellectual influence of a band of imaginative scholars (pp.100).” The universities are schools of education and schools of research. Education is discipline for the adventure of life; research is intellectual adventure; and the universities should be homes of adventure shared in common by young and old.

In the eighth chapter Whitehead talks about organization of thought. Organized thought is the basis of organized action. Organization is the adjustment of diverse elements so that their mutual relations may exhibit some predetermined quality (pp.103). He suggests that science has a much more homely starting ground. Its task is the discovery of the relations which exist within that flux of perceptions, sensations and emotions which forms our experience of life. It is in this way that science is the thought organization of experience (pp.105).

Neither logic without observation, nor observation without logic, can move one step in the formation of science. Youth is not defined by years but by creative impulse to make something, the aged are those who, before all things, desire not to make a mistake. Logic is the olive branch from the old to the young, the wand which in the hands of youth has the magic property of creating science (pp.119).

In the ninth chapter Whitehead discusses ontology, i.e., the nature of what truly exists. He talks about the present as always changing into the past and the future. In other words, the present is not really present. To illustrate how change occurs he mentions a piece of meat as it is cooking. If left unattended, when will the meat cease to be meat?

In the chapter ten Whitehead discusses fundamental problems concerning space and time have been considered from the standpoints created by many different sciences. He emphasizes the point that our only exact data as to the physical world are our sensible perceptions. We must not slip into the fallacy of assuming that we are comparing a given world is, in some general sense of the term, a deductive concept. Our problem is to fit the world to our perceptions and not our perceptions to the world (pp.165).

This book is as fresh and useful as it was 82 years ago when I first read it. These essays are timeless. For the reader who instinctively feels that learning must be meaningful to be of value, Whitehead must be read. This book is well suited to curriculum designers and or instructors who feel strongly about including experiential activities. Whitehead’s insights

would be especially useful for decision-makers/sponsors of learning who must demonstrate a positive return on their investment. The first time reader will have to overcome a sense of frustration that Whitehead's keen observations are as applicable today as when they were written nearly 82 years ago. Whitehead shoots straight. He begins by stating that most teachers transmit "inert" ideas in their practice- - they teach material that has to practicable bearing on providing any meaningful help to students. I wish more teachers and teachers developing their pedagogical methodology would take the time to read this short masterful book. Whitehead makes some good general points, then a few more specific remarks including a quite interesting defense of the study of classics and sketchy outline of mathematics curricula, and then there are three chapters on various aspects of logic, science and space& time that have nothing to do with education. The first line of this book Whitehead assures us the purpose of education is to enrich life and "scraps of information have nothing to do with it". Language of this book not easy to read, on some places language is very difficult to read. This magnificent book belongs on the shelf of every person who is interested in education of mankind throughout life.

**Reviewed by**

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