



Whitehead and Contemporary View of Education

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ABSTRACT

When asked of Alfred North Whitehead is probably best known for his collaborative work Principia Mathematica (1910) with Bertrand Russell which situates him within the context of mathematical logic and subsequently process and Reality(1929) that situate him within the context of process metaphysics but little is known for his development of an original theory of teaching and learning process which has much to offer in this our present times. This is why this paper seeks to prove that Whitehead has made a significant contribution to the field of education. The focus of 21st-century education is critical thinking and problem solving that translate textbook material into real-life situations where teachers encourage creativity and experimentation. Whitehead has demonstrated this critical thinking and problem-solving even in his metaphysical framework as well as his mathematical logic. The study of mathematical logic with the use of symbols provides the basis for developing rational thinking and problem-solving skills that can be applied across different fields. Whitehead emphasizes that education should focus on enabling students to understand the abstract principles that underlie various subjects rather than a simple collection of facts. Whitehead's educational ideas were influenced by his belief in the unity of knowledge. He considered literature, science, and, technique as pillars for education and called for a curriculum that integrates all of these disciplines and such a curriculum will allow learners to see the unity and interconnectedness of knowledge. This is why this paper argues that there is a place for Whitehead's philosophy of education in today's contemporary world, that is to say, whitehead's educational ideas are in view with contemporary educational practices and pedagogical principles of teaching and learning process. whitehead advocated experiential education by valorising education that encompasses science, literature, and technique. Technique is an art defined by its creativity and skilfulness, creativity is the fruit of constant practice and arouses rational and critical thinking required by a learner. So the purpose of education for whiteheads is to stimulate and guide learner to their self-development and the joy of self-discovery. The general training should aim at eliciting our concrete apprehensions and should satisfy the itch of youth to be doing something. Consequently, whitehead thinks that "education should be like the Garden of Eden where Adam saw the animals before he named them and not when the learner named the animals before they saw" them, and all these tied with the present contemporary pedagogical thinking

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1. INTRODUCTION

Philosophy of education is the philosophical study of education and its problems, its central subject matter is education, and its methods are those of philosophy¹. Questions in the philosophy of education are first and foremost questions about education, and most philosophers of education are employed in schools and departments of education. Their questions are philosophical in that they require philosophical methods for their investigation². Whitehead on his part has employed the philosophical method of practical education; he calls for education of actions, deeds, and demonstration for better mastery. Whitehead's philosophy of education answers the question of: *how should children be trained or educated. which form or type of education should be given to them.* According to Whitehead, In training a child to the activity of thought, above all things we must beware of what he will call "inert ideas" – that is to say, ideas that are merely received into the mind without being utilized or tested or thrown into fresh combinations³.we should be conscious of "inert ideas" in the child training because education in the past has been radically infected with inert ideas. That is the reason why uneducated clever women who have seen much of the world are in the middle of life so much the most cultured part of the community. They have been saved from this horrible burden of inert ideas⁴.

Based on the aforementioned, whitehead therefore calls for a reform in educational curriculum. To him, "There is only one subject matter for education and that is life in all its manifestation"⁵. "We offer children algebra from which nothing follows, geometry from which nothing follows, science from

¹ Nel Noddings, *Philosophy of Education*, First published 2016 by Westview Press, Copyright © 2016 by Taylor & Francis Published 2018 by Routledge, fourth edition, New York, London . p. xiii

² *Ibid.*, p.1

³ A.N. Whitehead, *The Aim of Education*, New York: The Free Press.1967.p.1

⁴ *Ibid.*,p 2

⁵ *Ibid.*,pp 6-7

which nothing follows, history from which nothing follows, and lastly, most dreary of all, literature represented by plays of Shakespeare”⁶. Whitehead’s educational ideas were influenced by his belief in the unity of knowledge. He considered, history, logic, mathematics, literature, science, and, technique as pillars for education and calls for a curriculum that integrates all these disciplines and such a curriculum will allow learners to see the unity and interconnectedness of knowledge. So the purpose of education for Whitehead is to stimulate and guide learners to their self-development and the joy of self-discovery. “Let the main ideas which are introduced into a child’s education be few and important and let them be thrown into every combination possible. The child should make them his own and should understand their application here and now in the circumstances of his actual life. From the very beginning of his education, the child should experience the joy of discovery. The discovery which he has to make is that general ideas give an understanding of that stream of events which pours through his life, which is his life”⁷. The above affirmations of whitehead are a call of concern in today’s advocacy of educational pedagogical principles. “Whitehead viewed each individual person as a living organism that carries within the self the principle of creative change. Education, therefore, is a natural process of self-development, setting in motion what is “already stirring in the mind”. For Whitehead, all things in nature, including learners, are not static substances to be shaped and formed, but living organisms in the process of becoming”⁸

2-ALFRED NORTH WHITEHEAD AND A PRAGMATIC VIEW OF EDUCATION

When asked of Alfred North Whitehead he is probably best known for his collaborative work *Principia Mathematica* (1910) with Bertrand Russell which situates him within the context of mathematical logic and subsequently *process and reality* (1929) that situate him within the context of process metaphysics but little is known for his development of an original theory of teaching and learning process which has much to offer in this our present times. The focus of 21st-century education is critical thinking and problem solving and Whitehead has demonstrated this critical thinking and problem solving even in his metaphysical framework. Whitehead’s attack on the modern world was never limited only to a specific science but in a global sense science as a term. In the science of education, whitehead comes against the method of education training, for he writes:

Another great fact confronting the modern world is the discovery of the method of training professionals, who specialize in particular regions of thought and thereby progressively add to the sum of knowledge within their respective limitations of subject. In consequence of the success of this professionalizing of knowledge, there are two points to be kept in mind, which differentiate our present age from the past. In the first place, the rate of progress is such that an individual human being, of ordinary length of life, will be called upon to face novel situations which find no parallel in his past. The fixed person for the fixed duties, who in older societies was such a godsend, in the future will be a public danger. In the second place, the modern professionalism in knowledge works in the opposite direction so far as the intellectual sphere is concerned. The modern chemist is likely to be weak in zoology, weaker still in his general knowledge of the Elizabethan drama, and completely ignorant of the principles of rhythm in English versification. It is probably safe to ignore his knowledge of ancient history. Of course I am -speaking of general. Tendencies; for chemists are no worse than engineers, or mathematicians, or classical scholars. Effective knowledge is professionalized knowledge, supported by a restricted acquaintance with useful subjects subservient to it⁹.

Whitehead worried about the method of professional training it is because it calls for total specialization that make a particular individual of such a field a saint but in other fields, the individual is totally insane. “Thus in the modern world, the celibacy of the medieval learned class has been replaced by a celibacy of the intellect which is divorced from the concrete contemplation of the complete facts”¹⁰. This criticism of modern life applies throughout, in whatever sense you construe the meaning of a community. It holds if you apply it to a nation, a city, a district, an institution, a family, or even to an individual. There is a development of particular abstractions, and a contraction of concrete appreciation. The whole is lost in one of its aspects”¹¹. To this effect, whitehead believed that “Wisdom”¹² is the fruit of a balanced development. It is this balanced growth of individuality which it should be the aim of education to secure”¹³. The first aim of education to guarantee for whitehead is the “balanced growth of individuality” or self. Thus, whitehead calls for the role of wisdom in education, education should be a gathering of day-to-day experiences, it enables the individual learner to reflect critically by discerning the intellectual development to practical development. To whitehead, the problem of our traditional educational methods is that they are far too much occupied with intellectual analysis, and with the acquirement of formularized information. What he means is, that we neglect to strengthen habits of concrete appreciation of the individual facts in their full interplay of emergent values and that we merely emphasize abstract formulations which ignore this aspect of the interplay of diverse values”¹⁴. To Whitehead, our educational system only furnishes us with theory and neglects practical, it focuses on furnishing the mind and fails to attribute the teaching to concrete experience. “Whitehead’s criticisms of educational practice are as applicable as ever. Globally, educational policy, pedagogy, and philosophy often fail to articulate a view that “the students are alive, . . . [that] the purpose of education is to stimulate and guide their self-development,” and that “the teachers also should be alive with living thoughts.”¹⁵. The general training should aim at

⁶ *Ibid.*, p 7

⁷ *Ibid.*, p.2

⁸ Brennan R. Hill, “Alfred North Whitehead’s Approach to Education: Implications for religious education”, McGill Journal of Education, Vol. 23 No. 1 Winter 1988, p.60

⁹ A.N. Whitehead, *science and the modern world* .p.196

¹⁰ *Ibid.*,p.196

¹¹*Ibid* .p.197

¹² Now wisdom is the way in which knowledge is held . it concerns the handling of knowledge , its selection for the determination of relevant issues , its employment to add value to our immediate experience . the mastery of knowledge , which is wisdom is the most intimate freedom obtainable . the ancients saw clearly –more clearly than we do –the necessity for dominating knowledge by wisdom but in the pursuit of wisdom in the region of practical education , they erred sadly (A.N. Whitehead, the aims of education .p.30)

¹³ A.N.Whitehead, *Science and the Modern world* .p.197

¹⁴ A.N. Whitehead, *Science and the Modern world* .pp.197-198

¹⁵ Vesselin Petrov and Adam C. Scarfe, *Education from a Whiteheadian Point of View: Process, Rhythm, and Poiesis*, Cambridge Scholars Publishing,

eliciting our concrete apprehensions and should satisfy the itch of youth to be doing something. There should be some analysis even here, but only just enough to illustrate the ways of thinking in diverse spheres. In the Garden of Eden Adam saw the animals before he named them: in the traditional system, children named the animals before they saw them"¹⁶

3. WHITEHEAD AND INERT KNOWLEDGE

Education for Whitehead is best described as the activity of thought. He writes: "What education has to impact is an intimate sense of the power of ideas, for the beauty of ideas". He vehemently opposed education that merely sets out to impose scraps of information, or what he called "inert ideas."¹⁷ Whitehead in "*The Aims of Education*" war against what he called "inert ideas"¹⁸ in the traditional educational training methods, to him, in the history of education, the most striking phenomenon is that schools of training which at one epoch are alive with a ferment of genius, in a succeeding generation exhibit merely pedantry and routine. the reason is that they are overladen with inert ideas"¹⁹. According to Whitehead, education with inert ideas is not only useless but it is above all things, harmful-*corruptio optimi, pessima*. Except at rare intervals of intellectual ferment, education in the past has been radically infected with inert ideas"²⁰. So whitehead suggestion is that education must go above inert ideas and stagnation. "Inert ideas are ideas that are merely taken into the mind without ever being used, tested, or placed into fresh combinations with other ideas. Those who view education in terms of imparting such information wrongly see the mind as a mere passive instrument that needs to be sharpened with facts. In contrast, Whitehead viewed the mind as a living organism that is in perpetual activity; delicate, receptive, and responsive to stimuli. It responds best when nature is authentically presented as full-blooded and happening with dynamic immediacy. Thus Whitehead recommends that teachers be "alive with living thoughts, and that these thoughts be carefully selected, put into all kinds of interesting combinations, and applied to the circumstances of life. Such living knowledge is not so much a "content," as it is a "process of exploration," wherein the past is applied to the present, the abstract to the concrete, and theory to action"²¹

How do we go above inert ideas? Whitehead's response is an enunciated of two educational commandments "Do not teach too many subjects" and again "What you teach, teach thoroughly"²². According to the educational commandments, the result of teaching small parts of a large number of subjects is the passive reception of disconnected ideas, not illumined with any spark of vitality. Let the main ideas which are introduced into a child's education be few and important and let them be thrown into every combination possible. The child should make them his own and should understand their application here and now in the circumstances of his actual life. From the very beginning of his education, the child should experience the joy of discovery"²³. This is because education to Whitehead must be useful. After all, understanding is useful and this is why he defines *education as the acquisition of the art of the utilization of knowledge. it is the guidance of the individual towards a comprehension of the art of life and by the art of life he means the most complete achievement of varied activity expressing the potentialities of that living creatures in the face of its actual environment*"²⁴. Whitehead affirms that the usefulness of education prevents it from becoming inert which is the central problem of all education"²⁵. Whitehead therefore appeals for a practical education, he affirms that all practical teachers know that education is a patient process of the mastery of details, minutes by minute, hour by hour, day by day. there is no royal road to learning through an airy path of brilliant generalizations. There is a proverb about the difficulty of seeing the wood because of the trees. That difficulty is exactly the point which I am enforcing. The problem of education is to make the pupil see the wood by means of the trees"²⁶.

4. WHITEHEAD AND REFORM OF EDUCATIONAL CURRICULUM

Whitehead equally calls for a reform in schools' curriculum in order to go above inert ideas. To him, each school should grant it's leaving certificates based on its own curriculum. The standards of these schools should be sampled and corrected. But the first requisite for educational reform is the school as a unit, with its approved curriculum based on its own needs, and evolved by its own staff. If we fail to secure that, we simply fall from one formalism into another, from one dung-hill of inert ideas into another"²⁷. According to him, the curriculum should fall under the three main methods which are required in a national system of education, namely, the literary curriculum, the scientific curriculum, and the technical curriculum. But each of these curricula should include the other two. what he mean is, that every form of education should give the pupil a technique, a science, an assortment of general ideas and aesthetic appreciation and that each of these sides of his training should be illuminated by the other's lack of time even for the most favored pupil, makes it impossible to develop fully each curriculum. Always there must be a dominant emphasis. The most direct aesthetic training naturally falls

Newcastle, 2019.p.ix

¹⁶ A.N. Whitehead, *Science of Education*, p.198.

¹⁷ Brennan R. Hill, "Alfred North Whitehead's Approach to Education: Implications for religious education", McGill Journal of Education, Vol. 23 No. 1 Winter 1988, pp.66-67

¹⁸ In training a child to activity of thought, above all things we must beware of what I will call "inert ideas" –that is to say, ideas that are merely received into the mind without being utilized or tested or thrown into fresh combinations(A.N.Whitehead, the aims of education, p.1)

¹⁹ A.N.Whitehead, *the Aims of Education*, p.1.

²⁰ *Ibid.*, pp.1-2

²¹ Brennan R. Hill, "Alfred North Whitehead's Approach to Education: Implications for religious education", McGill Journal of Education, Vol. 23 No. 1 Winter 1988, p.67

²² A.N.Whitehead, *the Aims of Education*, p.1

²³ *Ibid.*, p.2

²⁴ *Ibid.*, p.39.

²⁵ *Ibid.*, p.5

²⁶ *Ibid.*, p.6

²⁷ *Ibid.*, p.13

in the technical curriculum in those cases when the training is that requisite for some art or artistic craft but it is of high importance in both a literary and scientific education”²⁸.

The literary curriculum is important because it is the study of “language, that is, the study of our habitual method of conveying to others our states of mind. The technique that should be acquired is the technique of verbal expression, the science is the language to the states of the mind conveyed. Furthermore, the subtle relations of language to feeling, and the high development of the sense organs to which written and spoken words appeal, lead to keen aesthetic appreciation being aroused by the successful employment of language. Finally, the wisdom of the world is preserved in the masterpieces of linguistic composition”²⁹. “Scientific education on the other hand is “primarily training in the art of observing natural phenomena and in the knowledge and deduction of laws concerning the sequence of such phenomena”³⁰. “The peculiar merit of a scientific education should be, that it bases thought upon first-hand observation and the corresponding merit of a technical education is that it follows our deep natural instinct to translate thought into manual skill and manual activity into thought”³¹ And lastly, “technical education is in the main a training in the art of utilizing knowledge for the manufacture of material products such a training emphasizes manual skill and the coordinated action of hand and eye and judgment in the control of the process of construction but judgment necessitates knowledge of those natural processes of which the manufacture is the utilization. Thus, somewhere in technical training an education in scientific knowledge is required”³². “In estimating the importance of technical education we must rise above the exclusive association of learning with book-learning. First-hand knowledge is the ultimate basis of intellectual life. To a large extent book-learning conveys second-hand information and as such can never rise to the importance of immediate practice. Our goal is to see the immediate events of our lives as instances of our general ideas”³³. All in all, whitehead suggested that every form of education should give the pupil a technique, a science and literature that arouse aesthetic appreciation and that each of these disciplines should assist that others in the course of the training.

CONCLUSION

We have singled out the place of whitehead’s educational thoughts in today’s pedagogical thinking and educational practice. The contemporary curriculum is exactly what Whitehead advocates for education; the curriculum merely assists learners in developing critical and rational thinking and problem-solving skills that arouse creativity. To Whitehead, the curriculum should make “the pupil see the wood by means of the trees”. “Education should be like the Garden of Eden where Adam saw the animals before he named them and not when the learner named the animals before seeing them”. A curriculum that will allow learners to see the unity and interconnectedness of knowledge and stimulate and guide learners to their self-development and the joy of self-discovery, the curriculum must encompass literary, scientific, and technical knowledge in the training. It encourages the transfer of learning where textbook material is translated into real-life situations. Accordingly, the learner should reflect critically by discerning intellectual development to practical development. Whitehead calls a pragmatic view of education which is today’s template vision for education

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²⁸A.N. Whitehead, *The Aim of Education* p.48

²⁹ *Ibid.*, p.49

³⁰ *Ibid.*, p.49

³¹ *Ibid.*, p.51

³² *Ibid.*, p.50

³³ *Ibid.*, p.51