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#### Abstract

The "modern vocational education" which has been formed gradually and in different levels and dimensions in recent years is in fact a try for defeating problems and deficiencies of "traditional vocational education" problems and deficiencies which are caused by strict skillorienting process, the separation of thought from activity, as well as separation of theoretical teaching from vocational teaching. In modern vocational education what is regarded is the combination of theoretical and experimental training, higher amount of communication between school education aims and vocational aims of economical centers, as well as communication of high education with higher education. school Modern vocational education which was first formed in the United States gradually became an element of interest to other world countries and up to today steps have been taken in order to act up on it.

The philosophical and historical basis of modern vocational education refers back to holistic pragmatist epistemology and unity of offered viewpoints by socialist originators. In fact the occurrence of the dominated holistic approach on this type of modern vocational education has caused attention to scientific and practical

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education and combined teaching programs. By pointing out to basis and levels of formation of modern vocational education in different countries, this article examines its epistemological foundations.

Key-words: vocational education; vocationalism; theoretical and practical education; functionalist epistemology; education in the United States; critical education

## Introduction

Before the twentieth century the responsibility of the education system in any society was the transfer of structured knowledge and the value system of that society to next generations. This was the continuous trend for many centuries. However the economical, social, and political developments of the twentieth century resulted in changes in the education path and caused the position and role of knowledge as a tool for answering the personal needs in having a suitable life to reduce to a considerable amount. These developments provided for the entry of many techniques and skills into the curriculums and the appearance of vocational education in the education systems.

Due to passing through different stages, new vocationalism has many different dimensions, which has caused various explanations and deductions for it (Chappell, 1998). This article aims at investigating the characteristics of such vocationalism and its theoretical and epistemological foundations. For this reason, the how of the shaping and the evolution path firstly, and then its epistemological foundations will be investigated and evaluated.

# The backgrounds of the appearance

The traditional education existing in the West, was severely criticized at the beginning of the twentieth century. These criticisms resulted in arguments regarding the issue of whether schools should serve to provide for the technical needs of the society, or they should come to students assistance for making life more human along with technology. Ellwood Cubberly, one of the famous American education historians of his time writes, "Our old tradition is that our high schools are only a place for book-reading, and not a place for educating professions that most women and men workers can use to live their lives with." (Rosenstock, 1991, p. 438). In justifying the joining of vocational education to the American schools in year 1909 he writes, "the future great wars will be on trade (economical) and not by military power" (Gray, 1996, p. 87).

As the number of students from the workers families in the high schools increased, criticism increased toward the schools program. One of the most influencing critics of such education was John Dewey. Dewey believed that by eventual reconstructing of the teaching methods and contents it is possible to take advantage of the best modern technology as well as the hidden problem-solving ability in the group of educational activities that are reliant on technology. In explaining Dewey's attitude, Marshal (1997) writes, "This theory doesn't mean that the schools should be attached to industry and trade, and surrender it to undeveloped, unimproved and unsocialized stages of the incorrect industry system; rather, what it means is that we make the school life more active, meaningful, and related to out-of-school experiences with the help of the problem-solving ability available in modern technology.

# The stages of shaping of the new vocationalism

The first move in order to fundamentally modify and enhance the American education system was the 1983 report by the "National Commission on Excellence in Education" titled "A Nation at Risk"<sup>1</sup>. This report was in fact a trigger to grab the attention of the thinkers and the instructors to itself and caused a set of modifications in the country's education system. What this report indicated to be a serious threat to the United States was the arising

<sup>1-</sup> In August 1981 the U.S. education minister set the "National Commission on Excellence in Education", which was responsible to evaluate the quality of educational programs in the United States. This commission, whose main goal was to pay special attention to the issues of the young people, focused more than anywhere else on the high school programs and published the results in a report titled "A nation at risk". It was stated in this report that there is school drop-out and reduction in students' scientific and educational ability in various courses. The report also stated that on top of these, the lowering of the scientific level and the education system insufficiencies and problems are all ringing the "danger" bell for the future of the country. This report, which was the result of 18 months of research and investigation was seeking solutions with which the education system can be revolutionized from foundation. This was done through the suggestions it was offering.

tide of mediocrity in schools which was causing the reduction of the country's competition strength compared to that of the Japanese, South Koreans, and the Germans.

In its exact form, new vocationalism was recognized through the publication of "The Unfinished Agenda" by the policy-makers of the vocational education society – an organization dependent on the center for national researches in vocational education of the state university of Ohio. The new vocationalism is not limited to only one move or educational modification. It is rather a series of modifications which build the various aspects and stages of this type of education It is possible that these modifications are still continued in the future.

Grubb  $(1996, a \& b)^1$  mentions five aspects or stages for describing "new vocationalism". Emphasis on these can help us to both become familiar with the shaping process of this type of vocational education as well as its characteristics: 1- Change of study credit model; 2- SCANS skills (Secretary's Commission on Achieving Necessary Skills); 3- Perkins law<sup>2</sup>, which states the modification of the vocational education program through expanding its content and including scientific and more general skills (or personal skills). (Bragg, 2000, Rosenstock, 1991); 4- the law of "school-to-work" opportunities with repeated stress on the educational combination of scientific and vocational, which is mainly taken from Germany's work-education curriculum<sup>3</sup> (Gregson, 1995; Rhoder and French, 1999; Gehring, 2001); and 5-Education through occupations, which just like stages three and four is after combining the theoretical education (scientific) and vocational (practical).

<sup>1-</sup> The separation of new vocationalism aspects is done based on the following two resources:

a- Grubb, W, Norton (1996). The New Vocationalism in the United States: Returning to John Dewey.

b- Grubb, W. Norton (1996). The New Vocationalism. What it is, what it could be? 2- Carl D, Perkins

<sup>3-</sup> Germany's work-education system is titled "dual system", in which two learning places, meaning the school and the work place complete each other. In this system, the young people learn the related skills to a specific work in the lab, factory, office, or store and at the same time attend vocational school one or two days per week. In order that the offered theoretical and practical training in the two different places can complete each other, these two types of education are coordinated with each other.

## **Expansion of new vocationalism in the world**

The efforts for modifying and re-describing vocational education is not restricted to the United States. There has been similar actions taken in other countries. In other words, the new vocationalism is eventually shaping and is expanding in other systems of education.

England is among the countries that has considered new vocationalism in the recent years and has had crave toward it. In this country, "The Technical and Vocational Educational Initiative" was put to work in year 1982. The project budget was supplied by the government and was an effort for shifting the center of attention from occupation-centered vocational education to general transferable skills. (Chitty, 1990). As a matter of fact, this was the first step in moving in the path of new vocationalism shaping in the United Kingdom, which concentrated on the necessity for shortening the distance between scientific and vocational education training

In addition to England, new vocationalism has been considered and steps have been taken for establishing it in such industrially advanced countries. Yonge (1999) for example points to the modifications that have appeared in Finland and Sweden. Among these modifying acts in Finland is the effort for combining the National Board of Educational and Consortia of Schools, which creates opportunities for students so that they can pass their scientific and vocational courses in a combined way. In Sweden as well, it is witnessed that there is an increase in the ratio of public education courses taken by vocational students. Dronkers in year 1993 showed that the vocational education content in the Netherlands is becoming more general. Howieson (1993) also reminds us that the modifications of the "National Certificate" in Scotland has helped in fading the distance between public education and professional education; This is done by its rejection of specialized skills and specifying expanded study clusters (Lewis, 1998, p. 6). Australian is another one of the countries in which new vocationalism has been considered. This type of

vocational education in Australia has surfaced in the form of competency-based education (Sedunary, 1996).

In whole, the investigation on the thoughts of those supporting new vocationalism in different countries in comparison with what is currently happening in the United States, shows the common attention of these countries to the equality of the value of scientific and vocational education.

# **Epistemological Foundations of New Vocationalism**

The important characteristic of new vocationalism is its stress on the unity of knowledge and skill. Therefore such vocationalism is not only in the vocational education domain, but also in the area of education. This approach is of course not without past record. Rather, examples of this unity and integration of knowledge and skill can be found in the experimental school by John Dewey as well as the education curriculum by the supporters of Marxism. The existing resources also show that the philosophical and historical roots of new vocationalism goes back to the pragmatism thought processes, Marxism, and critical education theory.

The group of scientists who have worked on investigating the theoretical foundations of new vocationalism believe that the source for this type of education is pragmatism thought and specially the thoughts of John Dewey (Lakes, 1997). As the most distinguished pragmatical philosopher, he believed that knowledge is gained in relation with an uncertain position, meaning that the human mind activates in facing uncertain circumstances, used its previous experiences and comes to conclusion by offering assumptions and putting those assumptions to work and experiment them. The product of this experience or research is what we know as knowledge. In fact, in his opinion, knowledge becomes meaningful only when in direct relationship with experience. Dewey rejects the dualistic view of theoretical and practical knowledge. Instead, he emphasizes integrated knowledge as the exact understanding accompanied by action. Dewey believes the experimental research methodology to be one of the methods for reaching knowledge and a method for thinking or teaching. Gregson (1995) also mentions that the change in the eventual model in new vocationalism has shifted the teaching-learning current more toward Dewey's vocational-education in mind.

Another thinking and philosophical foundation of new vocationalism are the Marxist viewpoints. Lakes (1997) writes, "The roots of new vocationalism can be traced right to the period when those in favor of Marxism revisions were stating Marx's understanding of the schools of capitalism" (p. 2). In other words, the philosophical roots of such kind of education can be found in Marxism epistemology. Marx's epistemology and in general Marxism is based on the unity and singularity of knowledge (theory and practice) and is similar to experimentalism in this aspect.

Lewis (1998) states that while considering new vocationalism, a new wave of neo-Marxist researchers have tried to point the attention of the public to the unjust activities for social classes and the gender discriminations. Being inspired by Dewey, they questioned the interest capitalism takes in considering the children of the workers social class as strictly the cogs of the wheel. They also demanded a type of vocational education with which citizens are developed who are aware in terms of criticism and are alert from the social perspective (p. 8).

Another flow of thought which was the basis for the shaping of the new vocationalism, was the critical theory. Due to the myriad interpretations of Marx's thought in the twentieth century as well as the social and political developments, Marxism was surfaced in many different shapes and forms. One of its most influential schools of that century was the Frankfort school or the critical theory school. The aim of this school was to explain the development of the modern capitalistic society and provide ways with which the society can escape the dominating and exploiting relationships. The theory of critical learning is also based on this and started with Neo-Marxist writings about the critical theory of the scientists who were dependents on the Frankfort school. Paolo Freire, the Brazilian instructor is considered one of the most famous thinking icons of the theory who painted a new drawing by taking advantage of Marxist thoughts and combining it with humanistic viewpoints.

Freire and his followers considered the Critical Theory in education. The viewpoint of critical education was based on the assumption that there is connection between educational practice and work with the social practice and work. The viewpoint states 80

that it is the responsibility of the critical thinker to identify these practices and work with them. In his analysis Freire talks of the opposition of "education for taming" with "education for freedom". In his opinion "education for taming" does things that generally transform the knowledge in this process into accepting and piling up information. These things include the separation of teaching from learning, science from practice, inculcation from innovation, and the repetition of the existing information from creation or creation of new information. On the other hand, "education for freedom" is idealistic and is optimistic toward the human maturity & perfection and tries to provide for it. In this type of education, the teacher is not completely possessing knowledge. Rather, a specific topic is the mediator between the teacher and the student as two individuals in the "knowledge" process. During the flow of the philosophical relationship based on knowledge and logic, the dialog between these two members of the knowledge process begins. Therefore the education which is the ground-maker for freedom and the education based on dialog are the ones that include the two dimensions of thought and practice, without which dialog would be nonsense and blank (Ali, translated by Arab, 1998, pp. 221-218).

The followers of the Critical education believe that new vocationalism provide for a place where the student can actively participate in critical dialog with their peers and teachers about work and occupation. Therefore, the new vocationalism can be a suitable method in "teaching for freedom". In their opinion, this type of vocational education is a place for a fight where the students of the deprived classes are given a limited opportunity to criticize the social order and find solutions for the democrat and more human-friendly relationships. With this regard, Grubb (1995) says that the part of the education that is attractive for the most of the vocational education supporters is the critical education.

The emphasis of critical education in curriculums is on destroying disciplines and creating knowledge that is interdisciplinary. On this basis, the teachers can have an active role as well. For example, the instructor can state the problems in such way that issues such as the existing policies on de-industrialization the principles of work with morality, and falling of production in national and global markets can be joined together (Lakes, 1997, p.19).

## Conclusion

In general, the conducted investigations show that based on the epistemology that rules the new vocationalism, knowledge and skill both have value and are considered through the flow of education. For this reason, not only is vocational education not considered a second rank education, but instead there is generally no distinction between vocational and scientific education. In this vocationalism, movement in the path of occupational skills are transformed into a crave in the path of general and expanded skills and therefore has reduced from the opposition between the two types of scientific and vocational education. Through new vocationalism, the assumption of the separation is rejected and the unity and the integration of theoretical and practical knowledge is considered, although due to the importance of experimental and practical knowledge, more attention has been given to this type of knowledge in the form of apprenticeship programs (the "from school to work" program).

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