

**A CRITICAL APPROACH TO DEBATES ON THE  
PRIMARY FUNCTIONS OF HIGHER EDUCATION: AN  
EXCLUSIVE FOCUS ON MARITIME EDUCATION AND  
TRAINING(MET)**

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**ABSTRACT**

The primary functions of higher education has been a matter of debates particularly since late 19th century, when the industrial movements were accelerated and “productivity” was focused more than “knowledge for its own sake.” This shift affected the outlook upon such other issues as curricula and methods to be adopted.

The purpose of this study is to scrutinize the viewpoints displayed on the functions of higher education in general and maritime higher education in particular. The data used in the study comprises a thorough review of the relevant literature.

The overall findings could be highlighted as follows: the recently accelerated movements in liberalization and globalization seem to have changed the outlooks upon the basic functions of higher education. The pursuit of knowledge for its own sake, which was once the basic principle, has been shifted towards a utilitarian and vocational emphasis. Another shift of significance has been observed on the methods – from behavioristic to cognitive approach. The most incommensurable challenge experienced in this shift has been “replacing competition with collaboration.” From the point of MET, the recent shifts are expected to match with its feature, basically international and vocational. Thus, the recent changes could be well utilized by MET to enhance efficient and effective productivity

The study comprises three parts: an overall evaluation on the functions expected from higher education, the means of accomplishing

such functions, and to-the-point curricula in accordance with these functions.

**Keywords:** University functions, academic learning, cognitive approach higher education curricula, MET

## ÖZET

Yükseköğretimin öncelikli işlevleri özellikle sanayi devriminin hızlandığı ve üretkenliğin daha fazla vurgulanmaya başladığı dönemden 19.yy. ikinci yarısından bu yana tartışılmaktadır. Üretkenliğin vurgulanması, uygulanacak müfredat ve yöntemlere bakış açılarını da etkilemiştir.

Bu çalışmanın amacı, genelde yüksek öğretim, özelde denizcilik eğitimine ilişkin sergilenen bakış açılarını derinlemesine irdelemektedir. Söz konusu irdelemede ilgili yayınlardan edinilen veriler kullanılmaktadır.

Varılan sonuçlar şu şekilde özetlenebilir: Hızlanan liberalizasyon ve küreselleşme hareketlerinin yüksek öğretimden beklenen temel işlevlere ilişkin yaklaşımları etkilediği görülmektedir. Önceleri, bilgi geliştirmenin salt bilgi adına yapılmasına karşın, yeni yaklaşımlar işe yararlığı ve mesleksi önemi vurgulamaktadır. Diğer önemli bir değişiklik de yöntemde gözlenmektedir. Davranışçı yaklaşımın yerini bilişsel yaklaşım almaktadır. Bu değişiklikte karşılaşılan önemli bir zorluğun “rekabet” yerine “paylaşımcılığın” yerleştirilmesinde yaşanmaktadır. Denizcilik eğitimi açısından bakıldığında sözü edilen değişikliklerin bu sektörün uluslar arası ve mesleksi özellikleriyle uyduğu görülmekte; denizcilik eğitimi bu değişikliklerden etkin ve verimli üretkenliği pekiştirmede yararlanabileceği düşünülmektedir.

Çalışma üç bölümden oluşmaktadır: Yüksek öğretimden beklenen temel işlevlerin genel değerlendirilmesi, işlevleri yerine getirmenin yolları ve bu işlevler doğrultusunda müfredat geliştirilmedi.

**Anahtar sözcükler:** Üniversitenin işlevleri, akademik öğrenme, bilişsel yaklaşım, yüksek öğretim müfredatı, denizcilik eğitimi. (MET)

### 1. The Functions Expected from Higher Education

It has widely been accepted that universities have two main and interrelated functions teaching and research (Kelly, 1995:120). An overall observation through the long history of the term “university” reveals that

the evolution of this two-fold function has brought about considerable changes both on the specific implication and practice of each function, historically derived from the classical Greek understanding.

### **1.1. The Function Assumed Traditionally**

According to the classical Greek understanding, “the aim of higher education is wisdom, wisdom is knowledge, principles and causes... the pursuit of knowledge is the good of the mind, and the good of the mind is the highest good to which humans can aspire... All members of a genuine academic community must be dedicated to the pursuit of knowledge for its own sake” (Gutmann, 1999:185) This traditional outlook upon the basic function of universities clearly focuses on “wisdom”, which could be interpreted to mean “research”. Another point to be underlined in this view is “the highest principles and causes” which is “wholly unspecialized and unvocational” (Gutmann, 1999:185). This outlook is still supported by a number of scholars. According to Goker (2007:6), for example, the term “university” has gained a clear identity, specifying its function as a center of scientific researches. Kelly (1995:118) highlights the mission of a university as “the sector of society where the responsibility for protecting the kind of openness on the face of knowledge... where most of the activities concerned with research... and understanding occur.”

### **1.2 The Function Shifted into “Productivity”**

Since the Industrial Revolution, considerable advancements have brought about certain changes in the views on the functions of higher education. The basic function held until then as “the pursuit of knowledge for its own sake” has had “a utilitarian and vocational emphasis” (Goker, 2007:6 and Kelly 1995:119) Kelly attributes this emphasis to the demands that “the public money spent on higher education should yield some tangible return... towards a view of education as a national investment.” The national investment aiming some tangible return must imply schooling for productivity, primarily in the service of the industry. “Scientific efficiency is regarded as a way of increasing worker productivity” (Hursh and Ross, 2000:3), and schools, according to this view, “should aid the economy to function as efficiently as possible by sorting and training students for their probable destinies in the workplace.” The new outlook upon higher education considers it as a qualified manpower supplier for business and industry. “Throughout the industrial world, corporate and conservative interests are demanding that society and schools meet the needs of business... schools are to be

reformed... to meet everchanging challenges of international competition and a changing marketplace.” (Hursh, Goldstein, and Griffith, 2000:190-191) What is claimed through this view is that higher education is recognized to reflect corporate interests. Besides, it aims at shifting the educational goal away from critical thinking “toward incorporating appropriate workplace behaviors.”

### **1.2. The Function Formed into “Career Training Institution”**

It wouldn't be overestimating to infer from the above highlighted outlook upon the expectations from higher education that the knowledge pursued and/ or created is believed to serve business and its productivity. Besides, not only knowledge but also certain skills and attitudes developed through higher education are thought to be shaped and directed so as to promote performance at workplace.” Many universities in North America, for example, have lost their focus on knowledge and can be seen as career training institutions, generating employable education product rather than intellectually rounded individuals. (Grewal and Hougstetter, 2007:176). This outlook seems to have dominated the expectations from higher education, which has been regarded as a center for vocational training.

### **1.3. Emergence of Multiversities**

There have existed certain objections to the vocational emphasis. The leading reconstructionists, Counts, Dewey, and Bromeld were some who “differed with the proponents of social efficiency.” (Hursh, Goldstein, and Griffith, 2000:3) Nevertheless, such oppositions seem to have focused on how vocational training ought to be rather than whether the basic function of higher education is to be confined in the “vocational emphasis.” In response to the need of a distinction between a ‘university’ and a “career training institution”, Gutmann (1999:188-190) proposes a new term, “multiversity” as a balance between “radical separation from society” and “radical submersion in it... to preserve a place for the pursuit of knowledge for its own sake, to accommodate subcommunities united by common academic and social purposes and also to open their gates to the pursuit of some but not all socially useful knowledge... securing a diversity of educational purposes and of intellectual communities within one institution of higher learning.” The drawback of a multiversity is highlighted as “whether the multiversity has a brain as well as a body... a mad scramble for football stars and professional luminaries.” Overcoming such a drawback must depend upon the extent to which a multiversity

organizes the principles it shoulders/ adopts and the methods of education and training it has adopted.

#### **1.4. Functions Expected from Maritime Education and Training (MET)**

MET is expected to provide education and training services for an exclusive but remarkably wide range of audience involved in shipping industry. The services are to address two prominent legs of shipping: shore and sea. The former stands for the maritime business and management, including logistics; the latter covers such technical issues as nautical science and marine engineering. Such an exclusive mission, then, places MET in a category of functions called “vocational career developing institution,” rather than that category of functions traditionally expected from higher education. Thus, the exclusive aims target efficiency, effectiveness, productivity, and innovation enabling the shipping industry to adapt to the everchanging needs and demands.

#### **2. Highlights on How to Teach/ Learn at Higher Education**

In parallel with the everlasting debates on the functions expected from higher education the best possible means of teaching/ learning has also been of the prevalent concerns throughout the recent history. There have been critical changes in positioning learners and teachers in educational activities since a critical shift from behavioristic approach to cognitive approach was adopted, wherein conditioning and memorizing was replaced with critical thinking and information processing. Consequently, learners, who used to be treated as passive individuals in need of getting spoonfed, where they are led to “memorize mechanically the narrated content... turned into ‘containers’... to be filled by teachers” (Hursh, Goldstein and Griffith 2000:197), have gradually been regarded as the profoundly active parts of educational activities, charged with responsibilities, and actively involved in the activities. Besides, education, once suppressed within the limits of banking model, “an act of depositing, in which the students are depositories and the teacher is the depositor” (Marker 2000:135) has turned into the means through which “students are confronted with genuine problematic situations for which they must work out possible solutions” (Stanley 2000:70) and a context wherein “students gain practice in framing their own questions and answering them... figure out how to share learning in a way that invites consideration, security and questions” (Hursh and Ross 2000:17).

### **2.1. Changes in the Roles of Teachers and Learners**

In the contemporary outlook upon university education, teachers are no longer “in authority”, though they are “an authority” (Kelly 1995:116). In other words, teachers are supposed to be experts and knowers in the subject matters studied, but they should not dominate the teaching/learning activities, “as university education is no longer a passive assimilation of preselected bodies of knowledge” nor is it swallowing the thoughts, ideas, beliefs, values, or knowledge of others. Instead, learners “need to be assisted to learn to develop their own knowledge, understanding, and, above all, values...” (Kelly 1995:116). Hence, “it is the teacher’s responsibility to create the conditions in which understanding is possible, and the student’s responsibility is to take advantage of that. Students should take responsibility for their own learning, where they use the university as a set of resources largely under their control. This is the most attractive vision of academic learning—that of a community of scholars pursuing their own course towards knowledge and enlightenment, inspired but not directed by their teachers” (Lauillard, 1993:1-2) Teachers in higher education are regarded as ‘mediators’ and ‘facilitators’ rather than a source of knowledge spoonfeeding students. This limitation takes teachers out of authority, but “places much more responsibility with them, it implies that the teacher must know something about student learning, and about what makes it possible. Student learning is not just about acquiring high level knowledge. The way students handle that knowledge is what really concerns ‘academics’”.

(Lauillard, 1993:14-15)

### **2-2. Basic Aspects Distinguishing Higher Education**

In higher education, where learners are to be treated as adolescents or young adults, and thus the basic principles of andragogy rather than pedagogy are to be employed, “learning should occupy the middle position of an activity that develops abstractions from multiple contexts”, which implies that “academic learning is different from other kinds of learning in everyday life—a distinction between natural environments which afford the learning of ‘percepts’ in everyday life, and unnatural environments which afford the learning are constructed for learning ‘precepts’ in education. (Lauillard, 1993: 19,24) in a sense, the distinction between these two types of learning and developing abstractions constitutes the overall nature of academic learning, which differs it from other levels of learning. This distinction calls for the use of ‘mathemagenic’ activities” that result in learning. These activities are said to cover such basic aspects as ‘apprehending structure, integrating

parts, acting on the world (of description), using feedback, and reflecting on goals” (Lauillard, 1993:50) which could be respectively briefed as “ focus on the signified, relate and distinguish evidence and argument ; organize and structure the context into a coherent whole; integrate sign with the signified; practice mapping between the two , and practice the forms of representation of an idea; relate the knowledge to experience , and theory to practice; use both intrinsic and extrinsic feedback to adjust actions to fit the task goal; and relate this to the message of the discourse, the structure of the whole.” (Lauillard, 1993:68).

### **2.3. The Effects of the Changes on Maritime Education and Training (MET)**

The changes highlighted can be said to have affected the methods used in MET. The most internationalized, shipping industry cannot isolate itself from such prominent changes in the search for efficiency and effectiveness in higher education, as “unlike many industries, where a general degree in any field will suffice provided it is coupled with on-the-job training... many sectors of maritime and related industries require people with specific skills and experience...” and thus “business and management educators and trainers have to ensure that the learning experience they offer facilitates the development of students with the ability to effectively and efficiently manage knowledge and other resources strategically” (Grewal and Hougstetter, 2007:173-178). Besides, in addition to the industry-related knowledge, those employed in shipping industry need to be provided with various other skills, some of which are integrating the parts into a consistent whole, cause-effect relations, problem-solving skills, communication (interpersonal) skills, critical thinking abilities, and above all, promoting collaboration-cooperation and team work spirits. In a sense, as Grewal and Hougstetter (2007:174) underline, social aspects of learning are to be focused, and rather than separating learners from workers, “a composite mix of learning and working is preferable.”

The signs of fruitful adaption to the recent changes in higher education could be observed at various practices that are reflected to the periodical international conferences of IMLA (International Maritime Lecturers Association). Besides, the maritime higher education institution where the author is employed has recently changed the traditional teaching method and adopted ‘Problem-Based Learning’ (PBL) method, a student-centered active learning approach.

### **3. The Changes in Contexts and Contents at Higher Education**

The debates, accelerated particularly since late 19th century, cover, in addition to the functions/ goals and methods to be adopted, the medium (context) of instruction as well as the nature of curricula (contents).

#### **3.1. Debates on Contexts**

The recent debates on the contexts, or the medium of instruction, seem to have favored such indispensable features as: “learner-centered”, “participatory” and “collaborative and cooperative.”

The proposals favoring the learner-centered and participative medium of instruction focus on eliminating the dominant authority of teachers suppressing/ restraining the individual freedom of learners. The role of teachers is proposed to facilitate learning, “to support the development of pupils’ own powers of reasoning and to promote their ability to think for themselves and to reach their own conclusions, not to dictate those conclusions to them,” (Kelly, 1995:114) and those of learners being to actively get involved in learning activities, and have control over and responsibility for their learning.

As for the proposals favoring “collaboration and cooperation” certain “should’s” and “must’s” seem to have encountered various challenges. The foremost challenge seems to have emerged from the very nature of liberalization and globalization that has imposed “competition.” As Kelly rightfully points out, “there are fundamental contradictions between the market and education models. The imposition of the market model, the stressing of an economic view of education, at any level, including that of higher education, puts at risk not only education itself but also democratic structures... one cannot help children to develop empathy in a context that encourages competition. One cannot support decision-making capability when choice is limited and/ or made on one’s behalf by ‘authority’. One cannot promote individual autonomy when freedom...is severely limited... If the main task in schools is to outdo every other people,... it is unlikely that he/ she will even be able to understand injunctions to be sensitive to others’ feelings and needs or to work cooperatively with them.” (Kelly 1995:127, 177, 180) Despite Kelly’s understandable pessimism, however, higher education faculty must persist on promoting team spirit, collaboration, and cooperation.

### 3.2. Debates on Curricula

Some of the debates favor “process-based” curricula rather than content (knowledge)-based ones if higher education is to accomplish basic goals targeted. According to this view, whatever knowledge learners are offered, they must be encouraged to recognize as problematic. (Kelly 1995:92-113) Besides, “they must learn to challenge, to evaluate, and if necessary to change it.” Ross(2000:223) suggests a similar opinion in a slightly different wording, “critical teaching should not be merely an abstraction academic formula... it should be a strategy for educational originizing that changes lives,including our own.”On the other hand, Gutmann (1999:188) underlines practicality often expected from universities. Hursh and Ross (2000:138-140) evaluate knowledge from a different perspective, suggesting that it must not be structured to be prescriptive in nature; otherwise, it would tend to “domesticate” the mind, and that teachers and students should be actively involved in planning a curriculum suited to the school’s cultural and social context. This perspective, however, could only be taken as making use of the feedback from learners on the curriculum to be initially designed by the faculty and/or the institution, for learners are often unlikely to be competent enough to build a whole curriculum from scratch.

The significant elements to be included in curricula of management education and training courses, according to Grewal and Hougstetter (2007:173) are developing in students the skills to collaborate and manage networks and life-long learning. Besides, it could be added that not only the explicit knowledge, but also both technical and cognitive dimensions of tacit knowledge should be considered while designing curricula.

Still another point to be considered is that the basic principles of androgogy rather than pedagogy are to be taken into account, for the learners at higher education level are adolescents or young adults.

As far as curricula for MET are concerned, those to be considered are the specific requirements of the shipping-related international conventions, a well integration of theory to practice, the basic requirements of the parties to the shipping industry, and periodically received internal as well as external feedback.

## **CONCLUSIONS**

This study provides a critical approach to the recent debates on the primary functions of higher education in general and maritime education and training (MET) in particular. The data used comprises the relevant literature review and the experience of the author, an academy at a MET institution. The subject studied is considered from three basic points of view – the recent debates on the functions, proposals for the methods, and the views on the favorable contexts and contents (curricula).

The basic changes in the functions expected from higher education seems to have been a shift from ‘learning for its own sake’ to ‘learning to be more productive’ in the marketplace of recently emerged liberalization and globalization. This shift seems to have resulted in adopting certain new methods-behavioristic approach being replaced by cognitive approach whereby teacher's role changed into facilitating and mediating learning and learner's position being encouraged to get involved in learning activities. Based on these changes, the medium of instruction has been proposed to shift from competitive to collaborative and cooperative contexts and curricula from content-based to process-based

MET seems to have been positively affected by the changes accelerated since late 19th

Century, having managed to adapt to the rapid flow of changes. Certain concrete/specific examples of remarkable adaptations are periodically exhibited at the international conferences of IMLA (International Maritime Lectures Association) Still another sign of a fruitful adaptation is the recent adoption of problem-based learning method (PBL) at the MET institution where the author of this study is employed.

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