

# The Online Journal of Quality in Higher Education

*Volume 1 Issue 4*  
*October 2014*

Prof. Dr. Muzaffer ELMAS

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## Message from the Editors

### Hello from TOJQIH

TOJQIH welcomes you. TOJQIH looks for academic articles on the issues of quality in higher education and may address assessment, attitudes, beliefs, curriculum, equity, research, translating research into practice, learning theory, alternative conceptions, socio-cultural issues, special populations, and integration of subjects. The articles should discuss the perspectives of students, teachers, school administrators and communities. TOJQIH contributes to the development of both theory and practice in the field of quality in higher education. TOJQIH accepts academically robust papers, topical articles and case studies that contribute to the area of research in quality in higher education.

The aim of TOJQIH is to help students, teachers, school administrators and communities better understand the new developments about quality in higher education. Submitted articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJQIH. TOJQIH provides perspectives on topics relevant to the study, implementation and management of quality in higher education.

I am always honored to be the editor in chief of TOJQIH. Many persons gave their valuable contributions for this issue.

TOJQIH and Sakarya University will organize the ICQH-2015 ([www.icqh.net](http://www.icqh.net)) in December, 2015 in Sakarya, Turkey.

#### Call for Papers

TOJQIH invites article contributions. Submitted articles should be about all aspects of quality in higher education and may address assessment, attitudes, beliefs, curriculum, equity, research, translating research into practice, learning theory, alternative conceptions, socio-cultural issues, special populations, and integration of subjects. The articles should also discuss the perspectives of students, teachers, school administrators and communities.

The articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJQIH.

For any suggestions and comments on the international online journal TOJQIH, please do not hesitate to fill out the [comments & suggestion form](#).

**October 1, 2014**

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## Outermost European Regions Of The Atlantic Area Network

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### ABSTRACT

The European Union's structural funds are one of the few options currently available to finance technological infrastructures. This is an opportunity to be exploited by the University of the Azores. The ideal partners of UAC are the FCCN and the universities of the outermost regions of the EU, represented by UNAMUNO association. The OERAAN does not need to be real but can be a virtual network and use the third-party infrastructures. There are several reasons to submit a proposal to the FP7 and just one not to do so.

**Keywords:** collaborative projects; education economics; digital divide; infrastructures; outermost regions; structural funds.

### INTRODUCTION

In the current conjuncture of economic and financial crisis, the structural funds of the European Union are one of the few options available to finance infrastructure as computer equipment, video conferencing systems and internet backbones.

In this paper I focus on analyzing a specific call of the Seventh Framework Programme for Research and Development (FP7), suggesting potential partners and providing relevant information for a proposal to be presented and enable these institutions of European outermost regions of the Atlantic area rely on an infrastructure that reduces the digital divide that separates of the mainland counterparts.

The paper is part of the outputs from the research 'Implementation Strategies and Development of an Open and Distance Education System for the University of the Azores' funded by the European Social Fund.

The main objective of this research was to observe the recent events related to likely paradigm shift in the educational area and propose to the UAC the adoption of solutions that can, at the same time, correct implementations that have already been made, meet their internal demands and respond to these new challenges.

Specifically for infrastructures, in the FP7 there are two relevant calls: ICT and INFRASTRUCTURES.

The call FP7-INFRASTRUCTURES-2013-1 (INFRA-2013-1.2.1: GÉANT), for example, was published on 10/07/2012 with the submission deadline on 05/12/2012.

(<http://ec.europa.eu/research/participants/portal/page/capacities?callIdentifier=FP7-INFRASTRUCTURES-2013-1>)

In this invitation were provided for the following actions:

- ICT based e-Infrastructures;
- Support to existing infrastructures.

(<https://infoeuropa.euroid.pt/registo/000049557/>)

The calls of FP7 are not of easy comprehension and/or submission. They sin by the lack of clarity, lack of objectivity and refer to an excess of external documents to the text of the call - not compiled - plus an extensive related legislation.

A given document never brings a concise text, but always refers to others. Many of the documents were not rewritten, but are pdf files of legislation publications (such as the invitations).

Not even the submissions of online forms of a specific call are kept at each new call. Not that these changes signify some improvement and/or error correction checked earlier. Most times there is only the store swap of the information requested, with a different approach and often redundant, as if a pseudo-expert (or group) just wanted to show service year after year to justify their positions.

It is a further difficulty imposed to newcomers in addition to rely with a system of evaluation strongly marked by the presence of the status-quo that dominates the European research and education institutions and thus favours the holders and/or beneficiaries of previous calls to the detriment of new propositions.

It is an enormous task and at national level you must use all the information and support that Portuguese FP7 Promotion Office (GPPQ) offers.

([http://www.gppq.fct.pt/\\_7pq/](http://www.gppq.fct.pt/_7pq/))

Compete for these calls can be an opportunity to be exploited by the University of the Azores (UAC) to improve infrastructure between the mainland and the islands (nine islands).

Infrastructures for ICT is a rather vague term nowadays but connections of better quality (bandwidth), means of communications as video-conferencing and computer equipment in order to improve the means for researchers to interact should be within the requirements.

The document Guide for Applicants CP-CSA-INFRA (2013) brings the following information:

- 1) Participation: "there must be at least three legal entities established in different EU Member States or associated countries (the countries concerned are listed in section 3). The entities must be independent of each other". (page 6)
- 2) Target audience: "research infrastructures and their stakeholders, public authorities, technological partners, research institutes, universities, industry, including SMEs, potential end-users". (page 6)
- 3) Indicative average duration: "for Integrating activities, the recommended duration of a project is 4 years". (page 6)
- 4) Activities: "an integrating activity shall combine, in a closely coordinated manner: (i) networking activities, (ii) transnational access and/or service activities and (iii) joint research activities. All three categories of activities are mandatory as synergistic effects are expected from these different components. It is recommended that at least one third of the EU contribution is allocated to the transnational access/service activities". (page 7)

Initially Ribeiro (2012) suggested that "it would be interesting to do something like 'Islands Network', for example: Azores (Portugal), Canary Islands (Spain), Aegean Islands (Greece)".



In a preliminary proposal (INFRA.Part.A.OERAAN), Roth (2013) suggested some partners as well as the project name, which could be “Outermost Regions of the European Atlantic Area Network” (OERAAN).

My analysis shows that probably the ideal partners of UAC are the universities of the outermost regions of the European Union, represented by “Outermost European Universities Network” (UNAMUNO).

(<http://www.redeunamuno.pt/>, <http://www.redunamuno.es/>)

The UNAMUNO network is composed, in addition to the universities of the Azores, Madeira and the Canarys, by the higher education institutions of the French West Indies and Guiana, Laguna and Reunion Island.

Recently the University of Cape Verde joined this network, but this extrapolates the call in the sense of not belonging neither to a Member State nor associated country.

The Medium Term Strategic Plan of the University of the Azores (2009-2011) specifies in “1.2. Actions” (page 7): e) The dinamisation of the UNAMUNO network, made up by the universities of the outermost regions of the European Community.

In UNAMUNO the contact details of the UAC are invalid because the university is no longer using the emails that were on the Notes server “@notes.uac.pt” but only “@uac.pt”. This aspect requires some attention in maintaining institutional contacts. Should never be used personal emails because people change, and contacts remain...

UNAMUNO Association (7 universities)

([http://unamuno.uma.pt/index.php?option=com\\_aicontactsafe&view=message&layout=message&pf=5&Itemid=77&lang=es](http://unamuno.uma.pt/index.php?option=com_aicontactsafe&view=message&layout=message&pf=5&Itemid=77&lang=es))

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The paper argues that two references can mean a difficulty to be overcome by the UAC, in accordance with instructions contained in the Guide for Applicants CP-CSA-INFRA (2013).

The first reference is in presentation: "Proposals shall be submitted solely by legal entities operating the NRENs or legal entities created by the NRENs to contribute to the deployment of connectivity and services on a pan-European scale (e.g. DANTE, TERENA, NORDUnet)". (item 5)

A National Research and Education Network (NREN) is a specialized internet service provider dedicated to supporting the needs of the research and education communities within a country. (<http://en.wikipedia.org/wiki/NRENs>)

In Portugal the NREN is the Foundation for National Scientific Computing (FCCN). However the FCCN is not responsible for the regional backbone (between islands) and the condition of being in the Autonomous Region of the Azores may give to UAC this possibility of direct application, without intermediaries. (<http://www.fccn.pt/en/>)

Moreover, the requirement of having international partners opens the possibility of the proposal being submitted by NRENs these countries than in the case of Spain and France are successively RedIRIS and RENATER. (<http://www.rediris.es/>, <http://www.renater.fr/>)

In previous calls to the FP7-INFRASTRUCTURES-2008-2 have already been observed the participation of universities (University of Malta), whether in countries that do not have a formal NREN or even when the regions are not met by these (the case of the Azores).

(<http://agenda.nikhef.nl/getFile.py/access?contribId=12&resId=0&materialId=0&confId=373>)

In the proposal "Multi-Gigabit European Research and Education Network and Associated Services (GN3)" of 2008 deserves attention the item 1.3.2 '(Proposed methodology): The project has three main technical objectives. The first is provision and operation of the backbone, coordination of the GÉANT NOC and all NREN NOCs etc'.

That is, the first objective was the provision and operation of backbone.

And this is exactly one of the things that the UAC needs, a high-speed backbone (connected to GÉANT network via FCCN or other NREN) whose supply and operation is assured.

Another reference is related to the maximum reimbursement rates. Some items are not fully covered, but others are. But the word "refund" always refers to the logic: spend the money first, prove the expenses and receive the payment later.

For Ribeiro (2012) this is a necessary procedure in Portugal: "We have spent many years creating solutions to problems which did not exist with just a senseless waste of resources". Thus, entities that had the problem and want to do something, can do so at a lower cost (but always with a cost).

In the Guide for Applicants CP-CSA-INFRA (2013), Annex 3 (Budget), is broken down what is covered (or not) and what can be considered "indirect costs", "personnel costs", "subcontracting", "other direct costs", "total budget", "requested EC contribution", "other revenue".

There is always some leeway to compensate for what is not covered by the EC through what already exists and what partners can collaborate. And in the case of the Azores, the Regional Government and Portugal Telecom (PT), among others, may complete what is lacking.

Maximum reimbursement rates of eligible costs by the EC are:

- Research and technological development = 50% or 75% \*
- Coordination activities = 100%
- Management activities = 100%
- Other activities = 100% \*\*

(\*) For participants that are non profit public bodies, secondary and higher education establishments, research organizations and SMEs.

(\*\*) For connectivity services costs, the maximum reimbursement rate shall be 50% for all participants.

The first part (research and technological development) to the UAC has coverage of 75%. The remaining 25% need not come, necessarily, from own resources, but can be allocated by what already exists.

At the other activities are included connectivity services and here there is a limit of 50%, in the case for the leasing of circuits. This is an item where there may be the support of Portugal Telecom and the Regional Government to take the other 50% share, because it is in the interest of both parties. They just need to come to terms...

Veiga (2012) pointed out the possibility of getting a lambda with the PT.

A lambda is an individual wavelength of light for transmitting data on a strand of fibre-optic cable.  
(<http://www.linktionary.com/l/lambda.html>)

In a certain way the EC covers many possibilities. So this is not a proposal in which the UAC will have to enter, necessarily, with compensatory measures that depend on the current budget of university. The matching funding from the University may, in some way, be based on what already exists, which includes the existing backbone (between the islands and the mainland) and the existing structure (physical buildings), etc...

If the other partners are called at the negotiating table (FCCN, PT, Regional Government, other universities, other NRENs) will be possible to establish the terms for each and what each part can collaborate in the project.

It is also a way to choose partners (who have interest and capabilities to participate).

Roth (2013) suggests as national potential partners of University of the Azores the FCCN, Azores Regional Government, PT and University of Madeira. As international potential partners, the Spain (Canary universities: ULL and ULPGC), France (University of the French West Indies and Guiana: UAG) and England with their respective NRENs: RedIRIS, RENATER and DANTE. And the UCV (ICPC):

- Foundation for National Scientific Computing (FCCN), Portugal;
- University of the Azores (UAC), Portugal;

- University of Madeira (UMa), Portugal;
- Public Business Entity Red.es (RedIRIS), Spain;
- University of La Laguna (ULL), Spain;
- University of Las Palmas de Gran Canaria (ULPGC), Spain;
- National Telecommunication Network for Technology, Education and Research (RENATER), France;
- University of the French West Indies and Guiana (UAG), France;
- University of Cape Verde (UNICV), Cape Verde;
- Delivery of Advanced Network Technology to Europe (DANTE), United Kingdom.

(<http://www.dante.net/>)

Anyway, this is an extensive and complex documentation that must be analyzed by several people as well as the national support (GPPQ) and eventually the FCCN.

The overall objective of the call INFRA-2013-1.2.1: GÉANT is to advance towards the GÉANT expert Group 2020 vision, enabling data-intensive collaborative research and education anywhere in Europe and beyond, through innovative services and operational excellence. This also implies bridging the digital divide and ensuring the free and unimpeded movement of scientific data and knowledge in the EU.

Specific objectives to be addressed are (Guide for Applicants CP-CSA-INFRA, 2013):

a) Support knowledge communities' growing requirements, address the approaching data tsunami and evolve GÉANT by:

- deploying the 100 Gbits/s technology across Europe and improving peering;
- developing, testing and operating innovative user-centric services; decisions for investing in new services should be based on a clear business case and commitment to deploy by several NRENs;
- strengthening the EU added value of GÉANT: adopt federated authentication and authorization infrastructure (eduGAIN); define decision-making procedures for aggregating demand, brokering services and joint procurements at European level on behalf of NRENs; and aligning to the most recent regulations, for example, in terms of data protection;
- reinforcing Europe's position as a hub for global research networking, by ensuring intercontinental as well as neighbourhood connectivity;
- seeking synergies with public services at European and national levels when appropriate.

b) Ensure GÉANT stays at the forefront of innovation, boosting the innovation potential of research and education network communities by:

- R&D activities that are open to academia, industry and user communities, for example, implemented through open calls, public-private partnerships or pre-commercial procurement; this includes exploring innovative business models, for example, for clouds, federated AAI and mobility; and contributing to international standardization, such as in IETF.
- deploying an open, advanced, virtualized, multi-domain testbed facility and expanding it globally and to cloud testing;
- exchanging staff between NRENS, academia and industry, and training;

In order to stimulate competition, the R&D activities that will be open to participation by external partners and implemented through open calls should amount to at least 50% of the EU contribution requested for the JRA. Where such activities concern applied research for developing new services, they will be supported only if tested over the GÉANT infrastructure and if there is commitment by at least three NRENS to use the services developed.

Achieving these objectives will require improving governance through greater end-user involvement and strengthened coordination with other e-Infrastructures in Europe and globally.

#### Funding scheme

##### Combination of Collaborative Projects and Coordination and Support Actions (CP-CSA)

GÉANT 2020 would turn the European communications common, where talent anywhere is able to collaborate with their peers around the world and have instantaneous and unlimited access to any resource for knowledge creation, innovation and learning, unconstrained by the barriers of the pre-digital world.

Europe is a centre of excellence to global research networks, the GÉANT Community produces innovative solutions, drives the evolution of the internet and its regulatory system is able to cope with the changing environment.

#### GÉANT Network

The GÉANT network is a pan-European communications infrastructure through which advanced services are provided to the national research and education networks (NRENS) of European countries.

This network also meets two other key objectives, which are to serve as platform development and testing of new advanced services and ensure adequate interconnection with counterparts' networks in other parts of the world.

The GÉANT network started its 3rd generation (GÉANT3) in April 1, 2009, through a project of co-financing of the 7th Framework Programme. The connection to GÉANT network is a key element of integration of the scientific community with its counterparts in Europe and other regions of the world, through services that support the highest demands of these communities. Without the link to GÉANT, there would be a digital divide hostile to the main agents of national innovation.

The GÉANT network is an extension of the research and education networks that are connected, and hence is also one of the main destinations of communications made via RCTS.

([http://www.fccn.pt/pt/index.php?id\\_menu=378](http://www.fccn.pt/pt/index.php?id_menu=378), <http://www.geant.net/>,  
<http://en.wikipedia.org/wiki/G%C3%89ANT>, <http://en.wikipedia.org/wiki/G%C3%89ANT2>)

An excess of partners reduces the chances of the budget for each institution.

Even so, the UAC has more points to be attended and this will always have to be kept in mind.

The archipelago of the Azores is composed of nine islands situated in the middle of the northern part of the Atlantic Ocean roughly 1,000 miles (1,600 km) west of mainland Portugal.

The choice and definition of partners and contacts are institutional issues...

But Roth (2013) considers that, at least, a French partner and a Spanish partner would be appropriate.

Cape Verde can be included as an "International Cooperation Partner Country" (ICPC).

The only submarine cable that currently connects South America with Europe passes by Cape Verde. Only one cable passes by the Azores. No cable passes through the Madeira Island.

As said Veiga (2012), this network does not need to be "real" (no one will put cables especially for it, because it is not justified), but "virtual" because you can use the third-party structures (cables that already exist).

I conclude by suggesting that there are several reasons to study, work and submit a proposal and only one not to do it.

The main reason to do this is to learn from the process, because it is not always a project is approved on the first attempt. But the reason for not doing so is the inertia and passivity that remains in the institution, always waiting for a magic solution or even destinations of outright grants from the Azores Regional Government.

## REFERENCES

Guide for Applicants CP-CSA-INFRA (2013). European Commission. 7th Framework Programme (FP7). Retrieved July 24, 2012, from <http://ec.europa.eu/research/participants/portal/download?docId=33243>

Medium Term Strategic Plan of the University of the Azores (2009-2011). Retrieved September 4, 2012, from <http://www.uac.pt/uploads/documentos/ba75e509c98e7c7bbf91e0005ffec3902b5e05d9.pdf>

Ribeiro, R. (2012). Internet publication [personal communication]. Message received from <rui.ribeiro@fccn.pt> in September 10, 2012.

Roth, R. (2013). Implementation Strategies and Development of an Open and Distance Education System for the University of the Azores. ESF/EC. Ponta Delgada: UAC. Retrieved October 18, 2013, from <http://hdl.handle.net/10400.3/2327>

Veiga, P (2012). Internet publication [personal communication]. Message received from <pedro.veiga@fccn.pt> in September 26, 2012.

## Mentoring Program as a Predictor of Mentees' Academic Performance in Higher Education in Malaysia

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### ABSTRACT

Most Islamic muamalat literature highlight that mentoring is an important activity in counseling, education and/or tasawuf. For example, counseling is often said as *al-irsyad* (al-Ghazali,1969) where mentors are viewed as experts in psychology that can be offered to solve individual problems. While, in an educational context, mentors are often called as *muaddib*, *murabbi*, *mursyid*, *mu'allim* and/or *mudarris* (Abd.halim, 2010). In addition, in a tawasuf viewpoint, mentoring is also known as *al-suluk* (good moral and well behaved) where a learning groups is properly guided by an individual who has comprehensive syariah knowledge, tarekat and hakikat, namely *Shaykh* (*mentor*). The discussion clearly explains that mentoring concept has been successfully implemented in the era of prophet Muhammad SAW and now its notion is adapted as a learning method to maintain and achieve the organizational strategy and goals. This study was conducted to examine the relationship between mentoring program and mentees' academic performance. A survey method was employed to gather self-report questionnaires from bachelor degree students in higher learning institutions in East Malaysia. The results of SmartPLS path model revealed two important findings: firstly, communication positively and significantly correlated with academic performance. Secondly, support positively and significantly correlated with academic performance. The result demonstrates that mentoring program does act as an important predictor of mentees' academic performance in the studied organization. In addition, discussion, implications and conclusion are elaborated.

**Keywords:** *communication, support, academic performance*

### INTRODUCTION

In an ancient Greek literature, mentoring is first highlighted in the epic story of 'The Odyssey' written by Homer. In this story, Odysseus tells his loyal and experienced friend, namely, Mentor (a person who has great wisdom and trustworthy) to teach his son, namely, Telemachus (a mentee or protégé who has less experience) about the tips for handling challenging lifestyles before he goes to the Trojan War (Edlind & Haensly, 1985; Ismail et al., 2005, 2006; Merriam, 1993). Based on this classical story, mentoring is often related to as an important field of education (Little et al., 2010; Johnson et al., 1991) and/or counseling (Gregson, 1994; Zuraidah et al., 2004) whereby mentors are the elderly whom have wisdom, experiences and can be trusted to educate young men who have little experience and knowledge (Little et al., 2010; Johnson et al., 1991; Russell & Adams, 1997; Wanguri, 1996).

Hence, the traditional mentoring concept has been given new interpretations by contemporary educationists, social psychologists and management scholars in order to suit it with the current organizational development and challenges (Dennison, 2000; Ismail et al., 2005, 2006; Ismail & Ridzwan, 2012; Oliver & Aggleton, 2002).

In today organizations, mentoring is often seen as a learning method where it encourages comfortable relationship between mentors (i.e., knowledgeable and experienced person) and mentee (i.e., less knowledgeable and experienced person) as an instrument to develop group and/or individuals' potentials in carrying out particular duties



and responsibilities, familiarize with new techniques, and care for all aspects of mentees (Cummings & Worley, 2009; Johnson et al., 1991; Long, 2002; Noe et al., 2002). There is no one best mentoring program model to fit all organizations, but they are designed and implemented according to the uniqueness of organizational contexts in terms of beliefs, policy, orientations, stresses, strengths and weaknesses (Irving et al., 2003; Ismail et al., 2005, 2006; Santos & Reigadas, 2002, 2005). These factors have affected organizations to design and administer the various types of mentoring program, especially informal relationship (e.g., specific demands, spontaneous and adhoc) and/or formal relationship (e.g., structured and coordinated relationship between mentor and mentee, using standard norms, continuously action plans, time frame, and particular objectives). In organizations, formal and informal mentoring programs are viewed as equally important, but informal mentoring programs are often implemented to complement and strengthen formal mentoring programs in order to achieve organizational strategies and goals (Friday & Friday, 2002; Hansford & Ehrich, 2006; Hansford et al., 2003; Ismail et al., 2005, 2006).

A review of current higher education student development program literature highlights that effective mentoring programs have two salient practices, i.e., communication and support (Bernier et al., 2005; Ismail & Ridzwan, 2012; Tennenbaum et al., 2001). In the context of university mentoring program, communication is generally defined as mentors openly delivering information about the procedures, content, tasks and objectives of the mentoring programs, conducting discussions about tasks that should be learned, giving detailed explanations about the benefits of attending mentoring programs and providing performance feedback (Allen et al., 2005; Fox et al., 2010; Ismail et al., 2005, 2006; Santos & Reigadas, 2005; Stewart & Knowles, 2003). Conversely, support is broadly defined as mentors provide emotional support (e.g., acquire new knowledge, skills, and attitudes, and guide them to properly apply in daily life) and instrumental support (e.g., assist mentees to adapt campus environments) at varying times to mentees (Allen & Finkelstein, 2003; Davis, 2007; Fox et al., 2010; Stewart & Knowles, 2003; Zuraidah et al., 2004).

Surprisingly, recent studies in university/faculty mentoring programs reveal that the ability of mentors to appropriately implement such mentoring characteristics may have a significant impact on positive mentee outcomes, especially academic performances (Bernier et al., 2005; Tennenbaum et al., 2001). In an institution of higher learning context, academic performance is usually evaluated by the students' persistence rates, graduation rates, and grade-point average (Granger, 1995; Levin & Levin, 1991; Santos & Reigadas, 2005). Within a mentoring program model, many scholars think that communication, support and academic performance are distinct, but strongly interrelated constructs. For example, the ability of mentors to properly implement comfortable communication and provide adequate support have been essential factors that may enhance positive mentee outcomes, especially academic performance (Bernier et al., 2005; Tennenbaum et al., 2001).

The nature of this relationship is interesting, but not much is known the role of mentoring program as an important predictor of mentees' academic performance in the higher education mentoring program research literature (Allen & Finkelstein, 2003; Bernier et al., 2005; Ismail et al., 2005, 2006; Ismail & Ridzwan, 2012). Many scholars reveal that this situation is due to many previous studies have much emphasized on the internal properties of mentoring program, employed a simple survey method to explains different respondent perceptions toward the implementation of mentoring programs and used a simple correlation analysis to measure the strength of association between mentoring program and mentees' academic performance. The findings of these studies have neglected to quantify the effect size of mentoring program as an important predicting variable in the mentoring program research literature. Consequently, it has not provided adequate information to be used as useful guidelines by practitioners in formulating strategic action plans to improve the design and management of mentoring programs in learning organizations (Bernier et al., 2005; Davis, 2007; Ismail & Ridzwan, 2012; Tennenbaum et al., 2001). Therefore, it motivates the researchers to fill in the gap of literature by measuring the relationship between mentoring program practices and academic performance.

### Literature Review

Several recent studies using a direct effects model to discover mentoring activities based on different samples like perceptions of 189 students in 9 departments at the University of California in Santa Cruz (Tennenbaum et al., 2001), perceptions of 110 students in Canadian colleges (Bernier et al., 2005), and 127 students at a defence based university in Malaysia (Ismail & Ridzwan, 2012). These studies proved that the ability of mentors to properly

implement comfortable communication and provide adequate support in formal and/or informal mentoring activities had enhanced mentees positive outcomes, especially academic performance (Bernier et al., 2005; Ismail & Ridzwan, 2012; Tennenbaum et al., 2001).

The empirical studies support the notion of adult learning theories. For example, Chickering's (1969) vector theory of identity development highlights seven important vectors to develop young adult identities: developing competence, managing emotions, becoming autonomous, developing interpersonal relationships, establishing identity, developing purpose, and developing integrity. Besides that, Levinson's (1978) early adult transition model posits that an individual's life structure would face critical situations when he/she goes through the transformation process from childhood into adulthood. Application of these theories in institutions of higher learning shows that the essence of mentoring program is to enhance positive young adults identities and life styles. For example, the ability of mentors to properly implement comfortable communication and provide adequate support in formal and/or informal mentoring activities may lead to an enhanced positive mentee outcomes, especially academic performance (Bernier et al., 2005; Ismail & Ridzwan, 2012; Tennenbaum et al., 2001). Based on the conceptual framework, it can be hypothesized that:

H1: Communication positively related to academic performance

H2: Support positively related to academic performance

## **Methodology**

### **Research Design**

This study used a cross-sectional research design where it allowed the researchers to integrate the mentoring program literature, the pilot study and the actual study as a main procedure to gather data for this study. Using such methods may gather accurate data, decrease bias and increase quality of data being collected (Sekaran & Bougie, 2010; Zikmund, 2000). This study was conducted in higher learning institutions in East Malaysia, Borneo. For confidential reasons, the name of the organizations used is kept anonymous. At the initial stage of data collection, the survey questionnaires were drafted based on the information gathered from the mentoring program literature. After that, the pilot study was conducted involving 5 senior year students (2<sup>nd</sup> year and above) in public institutions and 5 senior year students (2<sup>nd</sup> year and above) in private institutions to verify that all questions were importance, relevance, clear and suitable for an actual study. Hence, a back translation technique was employed to translate the survey questionnaires into English and Malay languages in order to increase the validity and ensure the reliability of research findings (Sekaran & Bougie, 2010; Zikmund, 2000).

### **Measures**

The survey questionnaire used in this study had three sections. Firstly, communication was measured using 3 items that were adapted from mentoring communication system literature (Foxon, 1993; Sullivan, 2000; Yamnill & McLean, 2001; Young & Cates, 2005). The item used to measure the construct were the importance of mentoring program, approachable and knowledge sharing. Secondly, support was measured using 5 items that were adapted from mentoring support system literature (Tsai & Tai, 2003; Chiaburu & Takleab, 2005; Langhout et al., 2004; Rayle et al., 2006; Vieno et al., 2007). The items used to measure the construct were interpersonal communication skills, giving suggestions, praise mentee performance in study, understanding the implications of actions taken, and listening. Thirdly, academic performance was measured using 4 items that were adapted from undergraduate student performance literature (Campbell & Campbell, 1997; Irving et al., 2003; Rayle et al., 2006). The items used to measure the construct were able to achieve CGPA, able to identify effective study methods, and able to improve answering skills in tests/exams. All items used in the questionnaires were measured using a 7-item Likert scale ranging from "strongly disagree/dissatisfied" (1) to "strongly agree/satisfied" (7). Demographic variables were used as controlling variables because this study focused on student attitudes.

### **Sample**

The unit of analysis for this study is undergraduate students in Malaysian institutions of higher learning in Sarawak, Borneo. The researchers had obtained an official approval to conduct the study from the management of the organizations and also received advices from them about the rules for conducting the survey in the organizations. Considering the constraints of the organization rule, as well as the duration of study and finance, the researchers had

distributed 250 survey questionnaires using a convenient sampling technique to undergraduate students in the public and private institutions of higher learning. This sampling technique was chosen because the management of the organizations had not given the list of undergraduate students and this situation did not allow the researchers to randomly select respondents for this study. From the survey questionnaires distributed, 196 usable questionnaires from the institutions of higher learning were returned to the researchers, yielding 78.4 percent of the response rate. The survey questionnaires were answered by participants based on their consents and on voluntarily basis. The number of this sample exceeds the minimum sample of 30 participants as required by probability sampling technique, showing that it may be analyzed using inferential statistics (Sekaran & Bougie, 2010; Zikmund, 2000).

### Data Analysis

The SmartPLS 2.0 was employed to assess the validity and reliability of the instrument and thus test the research hypotheses (Henseler et al., 2009; Riggle et al., 2009). The main advantage of using this method may deliver latent variable scores, avoid small sample size problems, estimate every complex models with many latent and manifest variables, hassle stringent assumptions about the distribution of variables and error terms, and handle both reflective and formative measurement models (Henseler et al., 2009; Riggle et al., 2009). The SmartPLS path model was employed to assess the magnitude and nature of the relationship between many independent variables and one or more dependent variables in the structural model using standardized beta ( $\beta$ ) and t statistics. The value of  $R^2$  is used as an indicator of the overall predictive strength of the model. The value of  $R^2$  are considered as follows; 0.19 (weak), 0.33 (moderate) and 0.67 (substantial) (Chin, 1998; Henseler et al., 2009). Thus, a global fit measure is conducted to validate the adequacy of PLS path model globally based on Wetzels et al.'s (2009) global fit measure. If the results of testing hypothesized model exceed the cut-off value of 0.36 for large effect sizes of  $R^2$ , showing that it adequately support the PLS path model globally (Wetzels et al., 2009).

### Results

#### Sample Profile

Table 1 shows the respondents' characteristics. The majority of the respondents were female (70.9 percent), their ages vary from 22 to 24 years (70.4 percent), the highest education level amongst the respondents were STPM holders (51.0 percent), (68.9 percent) comprises of third year students being the majority in the respondent group, students achieving CGPA between 3.01 to 3.50 also being the majority amongst the respondents consists of (48.5 percent), and students who study in a public institutions of higher learning consists of (85.7 percent).

Table 1. Respondents' Characteristics (n=196)

Respondents' Profile	Sub-Profile	Percentage
Gender	Male	29.1
	Female	70.9
Age	19 to 21 years old	25.0
	22 to 24 years old	70.4
	25 to 27 years old	4.6
The Highest Educational Level	SPM	6.1
	STPM	51.0
	Diploma	10.8
	Matriculation	32.1
Current Year of Study	Second Year	6.1
	Third Year	68.9

	Fourth Year	24.5
	Fifth Year	0.5
Academic Achievement	CGPA 2.01-2.50	5.6
	CGPA 2.51-3.00	34.7
	CGPA 3.01-3.50	48.5
	CGPA 3.51-4.00	11.2
Institution	Public Institutions of Higher Learning	85.7
	Private Institutions of Higher Learning	14.3

Note:

*SPM/MCE* : *Sijil Pelajaran Malaysia/ Malaysia Certificate of Education*

*STPM* : *Sijil Tinggi Pelajaran Malaysia/ Higher School Certificate*

### Model Measurement

The confirmatory factor analysis was employed to assess the psychometric of survey questionnaire data. Table 2 shows the results of convergent and discriminant validity analyses. All constructs had the values of average variance extracted (AVE) larger than 0.5, indicating that they met the acceptable standard of convergent validity (Henseler et al., 2009). Besides that, all constructs had the values of AVE square root in diagonal were greater than the squared correlation with other constructs in off diagonal, showing that all constructs met the acceptable standard of discriminant validity (Henseler et al., 2009; Yang, 2009).

Table 2. The Results of Convergent and Discriminant Validity Analyses

Variable	AVE	Communication	Support	Academic Performance
Communication	0.725	<b>.851</b>		
Support	0.741	0.418	<b>.861</b>	
Academic Performance	0.779	0.472	0.437	<b>.883</b>

Table 3 shows the factor loadings and cross loadings for different constructs. The correlation between items and factors had higher loadings than other items in the different constructs, as well as the loadings of variables were greater than 0.7 in their own constructs in the model are considered adequate (Henseler et al., 2009). In sum, the validity of measurement model met the criteria.

Table 3. The Results of Factor Loadings and Cross Loadings for Different Construct

Construct/ Item	Communication	Support	Academic Performance
<u>Communication</u>			
Objective	<b>0.836673</b>	0.387340	0.364466
Moral values	<b>0.897438</b>	0.393681	0.439693
Critical thinking	<b>0.818922</b>	0.287202	0.396970
<u>Support</u>			
Motivation	0.405739	<b>0.841673</b>	0.365410

Listen to suggestions	0.340172	<b>0.842116</b>	0.355063
Praise	0.339573	<b>0.875203</b>	0.389806
Help	0.327694	<b>0.868722</b>	0.394228
Listen to problems	0.384191	<b>0.875777</b>	0.373948
<b>Academic Performance</b>			
Cumulative grade point average	0.342061	0.329364	<b>0.847694</b>
Effective study	0.458355	0.435010	<b>0.914396</b>
Skills	0.436621	0.380145	<b>0.883913</b>

Table 4 shows the results of reliability analysis for the instrument. The values of composite reliability and Cronbach's Alpha were greater than 0.8, indicating that the instrument used in this study had high internal consistency (Henseler et al., 2009; Nunally & Benstein, 1994). These statistical analyses confirmed that the measurement scales met the acceptable standard of validity and reliability analyses as shown in Table 2.

Table 4. Composite Reliability and Cronbach's Alpha

Construct	Composite Reliability	Cronbach Alpha
Communication	0.888	0.810
Support	0.935	0.913
Academic Performance	0.913	0.859
Construct	Composite Reliability	Cronbach Alpha
Communication	0.888	0.810
Support	0.935	0.913
Academic Performance	0.913	0.859

### Analysis of Constructs

Table 5 shows that the mean values for the variables are between 5.1 and 5.3, showing that the levels of communication, support and academic performance are ranging from high (4) to highest level (7). The correlation coefficients for the relationship between the independent variable (i.e., communication and support) and the dependent variable (i.e., academic performance) are less than 0.90, showing the data are not affected by serious collinearity problem (Hair et al, 2006).

Table 5. Pearson Correlation Analysis and Descriptive Statistics

Variable	Mean	Standard Deviation	Pearson Correlation analysis (r)		
			1	2	4
1. Communication	5.3	.92	1		
2. Support	5.1	1.17	.42**	1	
3. Academic	5.3	.91	.47**	.43**	1

Performance					
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Note: Significant at  $**p < 0.01$

Reliability Estimation is Shown in a Diagonal

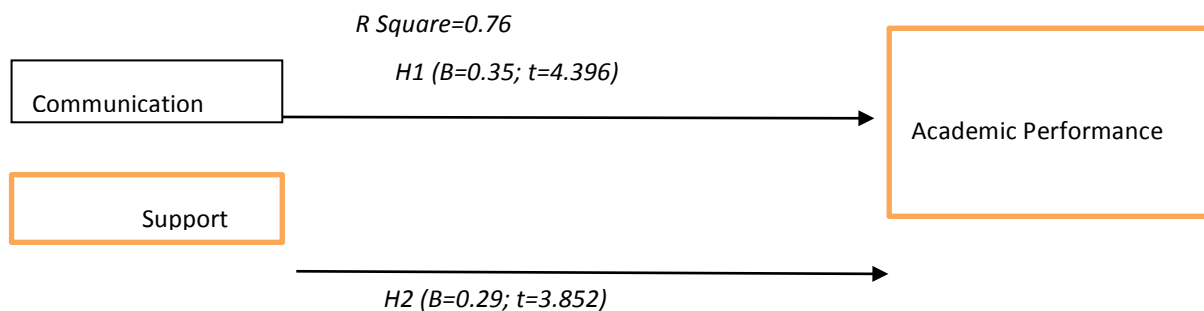
**Outcomes of Testing Hypotheses 1 and 2**

Figure 2 shows the outcomes of SmartPLS path model for testing the direct effects model. In terms of exploratory of the model, the inclusion of communication and support in the analysis had explained 76 percent of the variance in dependent variable. Specifically, the results of testing hypothesis highlighted two important findings: first, communication significantly correlated with academic performance ( $\beta=0.35$ ;  $t=4.396$ ), therefore H1 was supported. Second, support significantly correlated with academic performance ( $\beta=0.29$ ;  $t=3.852$ ), therefore H2 was supported. In sum, the result confirms that mentoring program does act as an important determinant of mentees’ academic performance in the organizational sample.

Independent Variable

Dependent Variable

(Mentoring Program)



Note: Significant at  $t > 1.96$

Figure 3. The Outcomes of SmartPLS Path Model

In order to determine a global fit PLS path model, we carried out a global fit measure (GoF) based on Wetzels et al.’s (2009) guideline as follows:  $GoF = \sqrt{\text{MEAN (Communality of Endogenous)} \times \text{MEAN (R}^2\text{)}}$  = 0.756, signifying that it exceeds the cut-off value of 0.36 for large effect sizes of  $R^2$ . This result confirms that the PLS path model has better explaining power in comparison with the baseline values (GoF small=0.1, GoF medium=0.25, GoF large=0.36). It also provides strong support to validate the PLS model globally (Wetzel et al., 2009).

**Discussion and Implications**

The findings of this study confirm that mentoring program does act as an important predictor of mentees’ academic performance in the studied organizations. In the context of this study, mentors have appropriately plan and implement mentoring activities based on the organizational policies and procedures. Majority respondents perceived that comfortable communication, and material and moral support are actively implemented in formal and/or informal mentoring activities. As a result, it may lead to enhanced mentees’ academic performance in the higher institutions.

This study presents three major implications: theoretical contribution, robustness of research methodology, and practical contribution. In terms of theoretical contribution, the results of this study highlight that communication and support have been important predictors of mentees' academic performance. This result is consistent with studies by Tennenbaum et al. (2001), Bernier et al. (2005), and Ismail and Ridzwan (2012). With respect to the robustness of research methodology, the survey questionnaires used in this study have met the acceptable standards of validity and reliability analyses. This may lead to the production of valid and reliable findings. In regards with practical contributions, the findings of this study may be used to improve the design and management of mentoring programs in organizations. In order to achieve this objective, management needs to give more attention on improving the following aspects: firstly, update training content and methods for mentors to in order to improve their competencies in teaching, counseling and guiding students who have different ability levels. Secondly, form mentoring groups according to students' academic achievement in order to ease mentors fulfilling their needs and expectations. Thirdly, mentors who have high teaching loads and active in research, but can show high commitment in improving student studies need to be given a high priority in getting better promotions. Fourthly, plan various kinds of learning activities in order to attract students who have different interests and capabilities to actively involve in mentoring programs. Fifthly, students who have actively participated in mentoring activities and show improvement in academic performance need to be given better recognitions. If these suggestions are heavily considered this may motivate undergraduate students to enhance their academic performance.

### Conclusion

The study developed a conceptual framework based on the higher education mentoring program research literature. The confirmatory factor analysis confirmed that the instrument used in this study met the acceptable standards of validity and reliability analyses. Thus, the results of SmartPLS path model showed that mentoring program does act as an important predictor of mentees' academic performance in the organizational sample. This result has also supported and extended mentoring program research literature mostly published in Western countries. Therefore, current research and practice within mentoring programs need to consider communication and support as crucial elements in the higher education student development program. This study further suggests that the capability of mentors to properly practice comfortable communication and provide adequate support will be essential factors that may enhance subsequent positive mentee outcomes (e.g., self-efficacy, satisfaction, commitment, career, leadership skills and ethics). Thus, these positive outcomes may lead to maintained and supported the higher learning institutions' strategies and goals.

### REFERENCES

- Allen, T. D., Day, R., & Lentz, E. (2005). The role of interpersonal comfort in mentoring relationships. *Journal of Career Development* 31(3), 155-169.
- Allen, T. D., & Finkelstein, L. M. (2003). Beyond mentoring: Alternative sources and functions of developmental support. *The Career Development Quarterly* 51, 346-355.
- Bernier, A., Larose, S., & Soucy, N. (2005). Academic mentoring in college: The interactive role of student's and mentor's interpersonal dispositions. *Research in Higher Education* 46(1), 29-51.
- Campbell, T. A., & Campbell, D. E. (1997). Faculty/student mentor program: Effects on academic performance and retention. *Research in Higher Education* 38(6), 727-742.
- Chiaburu, D. S. & Takleab, A. G. (2005). Individual and contextual influences on multiple dimension of training effectiveness. *Journal of European Industrial Training* 29(8), 604-626.
- Chickering, A. W. (1969). *Education and identity*. San Francisco: Jossey-Bass.
- Chin, W.W. (1998). The Partial Least Squares approach to Structural Equation Modelling. In Hoyle, R.H. (eds.) *Statistical Strategies for Small Sample Research* (pp. 307-341). California: Sage Publication, Inc.
- Cummings, T. G., & Worley, C. G. (2009). *Organization development & change*, (9<sup>th</sup> Edition). Masan: South-Western Cengage Learning.
- Davis, D. J. (2007). Access to academe: The importance of mentoring to black students. *Negro Educational Review*, 58(3/4), 217-279.
- Dennison, S. (2000). *A win-win peer mentoring guidebook: A practical manual for designing and managing a*

*mentoring program*. Clemson, SC: National Dropout Prevention Center.

Dutton, C. (2003). Mentoring: The contextualization of learning- mentor, protégé and organizational gain in higher education. *Education and Training*, 45(1), 22-29.

Edlind, E. P., & Haensly, P. A. (1985). Gifts of mentorship. *Gifted Child Quarterly*, 29(2), 55-60.

Fox, A., Stevenson, L., Connelly, P., Duff, A., & Dunlop, A. 2010. Peer-mentoring undergraduate accounting students: The influence on approaches to learning and academic performance. *Active Learning in Higher Education* 11(2), 145-156.

Foxon, M. (1993). A process approach to the transfer of training: The impact of motivation and supervisor support on transfer maintenance. *Australian Journal of Educational Technology* 9(2), 130-143.

Friday, E., & Friday, S. S. (2002). Formal mentoring: Is there a strategic fit?. *Management Decision* 40(2), 152-157.

Granger, J. M. 1995. *Partners for success: Faculty mentors' and student mentees' perceptions of a mentoring program*. Department of Social Work, State University, California, CA: Technical Report, Long Beach.

Gregson, K. 1994. Mentoring. *Employee Counseling Today*, 6(4), 26-27.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2006). *Multivariate data analysis*. New Jersey: Prentice Hall International.

Hansford, B., & Ehrich, L. C. 2006. The principalship: How significant is mentoring? *Journal of Educational Administration*, 44(1), 36-52.

Hansford, B., Tennent, L., & Ehrich, L. 2003. Educational mentoring: Is it worth the effort? *Educational Research & Perspectives*, 30(1), 42-75.

Henseler, J., Christain, M., Ringle, R., & Sinkovics. 2009. The use of Partial Least Square Path modeling in international Marketing. *Advances in International Marketing*, 20, 277-319

Hulland, J. (1999). Use of partial least square (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195-204.

Irving, E. S., Moore, W. D., & Hamilton, R. J. (2003). Mentoring for high ability school students. *Education and Training*, 45(2), 100-109.

Ismail, A., Hasbullah, K., Bakar, R. A., & Boerhanoeddin, A. (2005). Amalan komunikasi dalam program mentoring: Pemindahan pengetahuan, kemahiran dan kebolehan memainkan peranan bersyarat dalam organisasi. *Jurnal Pendidikan*, 93-115.

Ismail, A., Hasbullah, K., Bakar, R. A., Ahmad, R., & Junoh, A. M. (2006). Pemindahan pengetahuan, kemahiran dan kebolehan mempengaruhi kesan amalan komunikasi antara mentor dan mentee: Satu kajian di sebuah institusi pengajian tinggi awam di Malaysia Timur. *Jurnal Kemanusiaan*, 7, 33-55.

Ismail, A., & Ridzuan, A.A. (2012). Relationship between mentoring program and academic performance. The mediating effect of self-efficacy. *The Proceeding of the 3rd International Conference on Business and Economics Research (ICBER)*, 12-13 March 2012, Indonesia

Johnson, S. K., Geroy, G. D., & Griego, O. V. (1991). The mentoring model theory: Dimensions in mentoring protocols. *Career Development International*, 4 (7), 384-391.

Langhout, R. D., Rhodes, J. E., & Osborne, L. N. (2004). An exploratory study of youth mentoring in an urban context: Adolescents' perceptions of relationship styles. *Journal of Youth and Adolescence*, 33(4), 293-306.

Levinson, D. J. (1978). *The seasons of a man's life*. New York: Knopf.

Levin, M. E., & Levin, J. R. (1991). A critical examination of academic retention programs for at risk minority college students. *Journal of College Student Development*, 32, 323-334.

Little, C. A., Kearney, K. L., & Britner, P. A. (2010). Students' self-concept and perceptions of mentoring relationships in a summer mentorship program for talented adolescent. *Roeper Review*, 32, 189-199.

Long, S. (2002). Mentoring: A personal reflection. *New Library World*, 103(1174), 94-97.

Merriam, S. (1993). Mentors and protégés: A critical review of the literature. *Adult Education Quarterly*, 33(3), 161-173.



- Noe, R. A., Greenberger, D. B., & Wang, S. (2002). *Mentoring: What we know and where we might go*. New York: Elsevier Science.
- Nunnally, J. C. & Bernstein, I. H. (1994). *Psychometric Theory*. New York: McGraw Hill.
- Oliver, C., & Aggleton, P. (2002). Mentoring for professional development in health promotion: A review of issues raised by recent research. *Health Education*, 102(1), 30-38.
- Pope, M. L. (2002). Community college mentoring: Minority student perception. *Community College Review*, 30(3), 31-45.
- Rayle, A. D., Kurpius, S. E. R., & Arredondo, P. (2006). Relationship of self-beliefs, social support, and university comfort with the academic success of freshman college women. *J. College Student Retention*, 8(3), 325-343.
- Riggie, R., Edmondson, D., & Hansen, J. (2009). A Meta-analysis of the relationship between perceived organizational support and job outcomes: 20 Years of Research. *Journal of Business Research*, 62(10), 1027-1030.
- Russell, J. E. A., & Adams, D. M. (1997). The changing nature of mentoring in organizations: An introduction to the special issue on mentoring in organizations. *Journal of Vocational Behavior*, 51, 1-14.
- Santos, S. J., & Reigadas, E. T. (2002). Latinos in higher education: An evaluation of a university faculty mentoring program. *Journal of Hispanic Higher Education*, 1, 40-50.
- Santos, S. J., & Reigadas, E. T. (2005). Understanding the student-faculty mentoring process: Its effect on at-risk university students. *J. College Student Retention*, 6(3), 337-357.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill building approach*. New York: John Wiley & Sons, Inc.
- Stewart, J., & Knowles, V. (2003). Mentoring in undergraduate business management programmes. *Journal of European Industrial Training*, 27/2(3/4), 147-159.
- Sullivan, R. (2000). Entrepreneurial learning and mentoring. *International Journal of Enterpreneurial Behavior and Research*, 6(3), 160-175.
- Tennenbaum, H. R., Crosby, F. J., & Gliner, M. D. (2001). Mentoring relationships in graduate school. *Journal of Vocational Behavior*, 59, 326-341.
- Tsai, W. C & Tai, W. T. (2003). Perceived importance as a mediator of the relationship between training assignment and training motivation. *Personal Review*, 31(2), 151-163.
- Vieno, A., Santinello, M., Pastore, M., & Perkins, D. D. (2007). Social support, sense of community in school, and self-efficacy as resources during early adolescence: An integrative model. *Am J Community Psychol*, 39, 177-190.
- Wanguri, D. M. (1996). Diversity, perceptions of equity, and communicative openness in the workplace. *The Journal of Business Communication*, 33(4), 443-457.
- Wetzel, C.M. Kneebone, R.L., Woloshynowych, H., Moorthy, K., & Darsy, A.D. (2006). The effects of stress on surgical performance. *The American Journal of Surgery*, 191(1), 5-10.
- Yamnill, S. & McLean, G. N. (2001). Theories Supporting Transfer of Training. *Human Resource Development Quarterly*, 12, 195-208.
- Yang, Z. (2009). A study of corporate reputation's influence on customer loyalty based on PLS-SEM model. *International Business Research*, 2(3), 28-35.
- Young, R. W., & Cates, C. M. (2005). Playful communication in mentoring. *College Student Journal*, 39(4), 692-701.
- Zikmund, W. G. (2000). *Business research methods*, 6<sup>th</sup> Edition. Chicago: The Dryden Press.
- Zuraidah, A. R., Zaiton, H., Masiniah, M., Jamayah, S., Sabasiah, H., & Abdul Halim, B. (2004). *Pengenalan mentoring di Institusi Pengajian Tinggi*. Kuala Lumpur: IBS.

## Organizing International Cooperation For Maritime Education And Training To Improve The Quality

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### ABSTRACT

A significant mission of the education and training is to support the industry and business in particular for providing qualified manpower. The world merchant fleet is improving both in quality and quantity to meet the shipping industry's requirements as well as all related economic activities. The requirements of shipping industry are significantly increasing to fully support rapidly growing world economy. The growing numbers of the ships transiting throughout the waterways, and in open seas are increasing and marine pollution is becoming / (has become) a sensitive issue. Not only technical measures but also studies on human element are deemed necessary to ensure safety at sea. The world is still facing a shortage of officers in quality and quantity which may severely affect the future of shipping.

The IMO, the international regulating organization has revised the standard of education and training for officers and ratings (STCW) to improve the quality of maritime education and training (MET) to meet the existing and future requirements. These new changes to STCW have accelerated international cooperation for research and development in MET, which has provided mutual support and information sharing, and led to the development of several new course and novel tools.

The projects supported by the European Union, such as SOS (Safety at Sea), E-GMDSS and GMDSS VET (e-learning GMDSS), TRAIN 4Cs I and II (Mobility and Certification), MarTEL (Maritime English Standards), MarEng Plus (Maritime English content), UniMET (Consolidated MET) have proved the benefits and importance of international cooperation and produced very beneficial results for international MET providers for whom there now is a new initiative to establish a worldwide network (platform).

This study gives a background to existing studies for the development of the MET programmes and practices and its role in bringing other parties for international cooperation to achieve a common goal. In the light of the impact of several MET projects, some findings for hint points for organizing international cooperation are also discussed.

**Keywords:** International cooperation for MET, STCW, Maritime Education and Training Organization for international projects

### INTRODUCTION

Technological improvements have caused rapid dissemination of knowledge. Today, every nation is trying to make innovations and also getting benefit from the transfer of innovation in their area of interest. There are sufficient platforms to facilitate cooperation and enhanced use of the internet provides online communications between all respective parties. The global and regional cooperation organizations meet the innovators and provide mutual support for participants. The 20<sup>th</sup> century was an era of inventions, but the 21<sup>st</sup> century will be an era of innovations.

Globalism is beyond economic relations, it also covers all aspects of life, social relations, technology, education, art, science, and so on. Nowadays, it is clearly understood that cooperation provides benefit for all and exchange of knowledge among nations improves the quality of work in different fields. The establishment of the European Union (EU) has brought about a new manner of cooperation. The EU projects have become a productive tool to reinforce

collaboration among member and candidate states for transfer of experiences to improve new solutions. Enhanced number of participants elicited better results rather than limited augments. (Ziarati & Demirel, 2011)

The high cost of communication and transportation used to be the main obstacles to cooperation among researchers living in different geographic areas. The allocated budgets were not sufficient to support research studies. But gradually increasing competition requirements forced the business sector to allocate more sources for research studies to meet the new conditions of challenging economies. The developing countries realized that there are many opportunities in the field of research and development. This situation has enhanced the number of qualified researchers stationed in different parts of the world. Improved communications and low cost air transportation facilitate meeting of experts and eliminate the long distances between countries. The easy transfer of knowledge which has been created in different cultures has opened new horizons for researchers. A clever solution in a developing country may be learned of by the technicians in a highly developed country and incorporated into a highly sophisticated system for better application. Thus a butterfly effect in science and technology has started throughout the world (Ziarati & Demirel, 2011).

The main mission of shipping is to promote economic growth. The shipping industry is supporting the rapidly developing global economy and **modifying** itself to benefit from technological improvements. Adoption of new technologies in marine systems in particular in the field of automation introduces new problems and modifies the education and training requirements. The condense ship traffic and increasing environmental pollution force the maritime community to rearrange the codes and regulations for safety at sea and protection of the maritime environment. To ensure safety at sea, technical measures are key, but improvement of the human element is also essential.

The shipping industry has still the problem of finding qualified seafarers, in particular seafaring officers, to handle modernized ships. The International Maritime Organization (IMO) report prepared in cooperation with the maritime community concerning the shortage of manpower has launched the 'Go to Sea' initiative to overcome the lack of **qualified** seafarers'. The BIMCO/ISF Manpower 2010 Update that states 'the current estimate of worldwide demand for seafarers in 2010 is **637,000 officers** and **747,000 rating**' has again alerted all concerned parties to the critical manpower shortage for the next decade.

The education and training requirements for seafarers are regulated by an internationally recognized convention by the name of Standards for Training, Certification and Watchkeeping (STCW) which was introduced in 1978. All seafarers are required to receive an education and training to work on board ocean-going ships. The STCW was revised in 1998 and 2010 to meet changing and **uprising** new safety and environmental requirements. These changes significantly affect the MET (Maritime Education and Training) systems. It is inevitable to apply these regulations for all the nations and, maritime administrations and MET providers should review and revise their education programmes including major changes in their systems to meet the newly appeared requirements. Because of the nature of the work, multinational cooperation is deemed necessary and many cooperative organizations have been established on an ad hoc or permanent basis in different parts of the world. As good examples the Global-MET initiative is working on this subject in the Asia-Pacific area and the European MET community initiative UniMET is trying to achieve the same goal.

## 2. RESEARCH METHOD

The research is conducted in three phases. In the first phase it is intended to investigate the problems encountered during planning, coordination and execution phases of the international projects which have been participated. In order to cover all aspects of the projects all communication papers between partners, midterm, final and financial reports are checked.

In the second phase the problems are categorised, grouped and associated if possible. This phase also covers conceptual approaches management. The problems which are mostly encountered are assumed priority items and studied.

The final phase covered a deep study to formulate possible/probable solutions to overcome the problems which directly affect the safe handling of projects. In these phase proposals to solve these high priority problem areas are clearly defined and summarized.

## 3. THE NEED FOR INTERNATIONAL COOPERATION

Sea transportation is an international activity; therefore, maritime personnel should be educated in accordance / compliance with international rules. Transportation cannot be supported only with national education methods and all parties may improve their MET having mutual support from the others. Ships manned with multinational crew are a

reality and this is becoming common practice. We can solve these problems providing standardization at MET. The best way to materialize standardization is through coordination and cooperation among training institutes (Ziarati & Demirel, 2011).

The human element is crucial for ensuring safety and productivity, and well-structured and effective education and training is the only way to have a qualified, skilled workforce. Beyond that the standardization of the modus operandi at the seaways is necessary to reduce confusion and facilitate coordination among the seafarers from different cultures. There is still a significant difference between the MET systems of different nations due to varying economic and cultural situations in their countries. Unfortunately, there are some nations that do not have sufficient experience on the MET. Because we share the same waters, we should have a qualified, standard MET for all so as to ensure safety. To achieve that developed countries are to provide assistance to developing nations by sharing their experience. International cooperation is now a critical issue to achieve a standardized and qualified education and training system for all concerned parties.

The sharing of new developments and existing information by cooperation will also help all concerned parties to reduce the cost of research and development expenses. The education and training material in the MET is still not sufficient and even the transfer of these material will solve many problems in the developing countries. The standardization of Maritime English, simulator training and training aids and teaching material have priority to meet the new STCW requirements. The common efforts will also reduce the cost of research and development.

#### 4. CONCEPTUAL APPROACH

The establishment of an effective management system needs a suitable organization (Kocel, 1998). The degree of formalization processes in an organization refers to the weight given to certain principles and methods for monitoring (Dessler, 2001). In many countries and organizations research and innovation studies are conducted not in the formal but in informal organization framework, in particular on an ad hoc basis. Working in an informal organization may create many problems during the work process. To overcome the difficulties arising from the nature of project management; the aims, objectives, goals and the principles should be clearly defined at the initial stage and the project management organization structure should be compatible with formal structure as much as possible. Also deviation from the institutional aims and objectives may hamper the project at the future stages and it should be avoided.

For developing innovation we need to differ from the existing methods and diversify the methods to provide us with the freedom of action. Nowadays innovative concepts of marine education, a shift from knowledge-based to competency-based training, and the need for constant professional updating and recertification have brought maritime training institutions out from under the shadows of the maritime administration and industry; now they must assume an equal partnership rather than simply reacting to the others' demands (Ziarati, 2006). MET planners should meet the STCW requirements rather than trying to meet different and sometimes conflicting requests from maritime administrations, industry and academics. To achieve that MET experts in different parts of the world should establish cooperation and coordination links to benefit from their colleagues. This will facilitate the work and eliminate probable mistakes and misunderstandings.

The posture of the merchant fleet changed in the past decade with the introduction of sophisticated ship design techniques on board ships. This improvement caused additional education and training requirements to support highly special maritime operations. The development of advanced navigational technologies specialised and professional transportation technologies and pollution prevention technologies and regulations were considered important for inclusion into the seafarers' competency standards. To meet these requirements maritime community needed to review competence (skills, training, selection, instruction and supervision) of seafarers at all levels (CHSS, 2006).

MET planners generally work on the programmes (syllabi) rather than other essential elements of the MET system such as standards of teaching staff, facilities and equipment which have a strong influence on the success and sake of the programmes. Actually these elements are the areas which need innovation rather than the programmes.

Any innovations in these fields will already affect the programmes.

The best way to achieve such a mission the feasible solution is the cooperation and coordination with other nations and related organizations. The improved communication systems and low cost international flights facilitate cooperation and coordination among system developers and reduce the cost and time spending. Nowadays international projects become a suitable tool to provide mutual support for researchers in different parts of the world (Ziarati & Demirel, 2011).

#### **4. INTERNATIONAL MET PROJECTS**

Having a common goal and compatible acquis, the European Union has an advantage to encourage and initiate union-wide projects with the participation of member and adjacent countries lay in a definite geographic area. The details of the EU projects can be reached via the internet and detailed information can be provided.

The EU Commission has submitted and supported many EU projects in support of vocational education and training including MET. Not only the member countries but also the countries at participation process could benefit from these projects.

Our institution initiated several major EU funded vocational training courses leading to recognised international certificates. A list of these projects and the purpose are given later in this proposal. These projects are;

**SOS** - To improve to provide an internationally recognized MET in EU

**E-GMDSS (SRC)** - To develop an e-learning system for GMDSS SRC (Short Range Communication) operators

**MarTEL** – To provide Maritime English Tests in line with STCW requirements

**TRAIN 4C I and II**- To provide mobility for cadets in support of SOS project.

**SURPASS**- To improve training programmes to reduce casualties due to automated system on board the ships

**M'AIDER**- To improve accident scenarios for training programmes to reduce casualties

**EBDIG**- To adopt innovations in automotive industry in small boat design

**UniMET** - To build on the success of SOS and TRAIN 4Cs Projects to reduce variability in MET ([www.unimet.pro](http://www.unimet.pro))

**SAIL AHEAD** - To provide opportunities for captains to find job onshore ([www.sailahead.eu](http://www.sailahead.eu))

**CAPTAINS** - To develop content and scenarios for **MarTEL Plus** Maritime English Standards ([www.captains.pro](http://www.captains.pro).)

**MarTEL Plus** – To develop Maritime Standards for Ratings ( [www.martel.pro](http://www.martel.pro))

The focus of the project has been primarily on the programme and teaching staff development through seeking support from the EU to develop consortia for joint programme and resource developments either to underpin or to support a given programme and/or its delivery. The staff development programmes so far have involved over 185 visits to other partner centres and attendance at major maritime conferences and scholarly events (Demirel&Ziarati).

There are several new EU projects for 2010-2013 initiated or participated by different European countries. These and the existing ones are real projects all secured through hard work against tough competition. The partners are willing to continue their good work and have proposed several proposals within the newly formed MariFuture platform to realise the intended future map. The network is expected to be involved in a continuous programme of research ([www.marifuture.org](http://www.marifuture.org)) .

The EU Maritime Projects also create a perfect cooperation platform and networking for maritime community

including shipping companies and training centres and other relevant educational establishments. Such an effective cooperation between European maritime and MET institutions for upgrading seafarers' competences and adapting requirements to the prerequisites of today's shipping industry. Wider collaboration in the form of exchange of students and developing and sharing courses as well as establishing joint facilities is key element to such fruitful collaboration. E-learning/virtual learning including video conferencing is an ideal way to facilitate the access to such courses and knowledge enhancing activities (MariFuture, 2010). E-learning is a very useful tool for learners who are not able to reach educational facilities due to working conditions, especially for people working at sea.

Partnership of training institutions and the industry including between industry partners towards establishing 'maritime certificates of excellence' (European maritime postgraduate courses) that may well go further than STCW requirements will create good collaboration as well as cost savings. This will provide the environment that companies can pick good practices from each other or at least make realise that in certain areas there are better practices than theirs (MariFuture, 2010).

The partnership of not only MET institution but also overall maritime industry into the European Union projects in support of maritime education and training will help to achieve the aim and objectives of all concerned bodies for qualified manpower. If the same practise can be achieved in the other parts of the world, the maritime community may get a huge benefit of it and finally this development may support our efforts to improve 'Safety at Sea'. This kind of cooperation is also advised for other business sectors.

## 5. FINDINGS

The studies covered the SOS, TRAIN4C-I-II-III, UniMET, SAILAHEAD, SURPASS and MARTEL projects which the author participated as project officer or local coordinator. As a nature of international projects, dissimilar problems in different partner countries and organizations are encountered. These problems are detected mainly in the planning, controlling, coordination and execution phases and mostly related to the organization and management issues.

The significant findings related to the organization and management topics are as follows;

- The area of interest of the partner institutions should be directly related to the intended project subject. Any inconsistency on this issue may create inconveniences during the completion of the project.
- The partner institutions should have qualified and sufficient number of the staff to support the project. The formal job definition of the project staff should match the aim and objectives of the intended project.
- The phases and action plan of the project should be carefully designed and sufficient number of staff and time period should be allocated.
- The position of the project coordinators in the institution hierarchy must be suitable for controlling in house distribution of the works and conducting external and coordination. He/she should also have the project management experiment.
- The time spent for administrative and financial report are highly time consuming in particular for the projects conducted under the support formal internal or international bodies. The sufficient number of qualified staff should be provided to achieve this type of activities.
- The external support should be available in case of lack of experts in-house to complete a specific task assigned to institute.

There are many other findings related to the project management. But if the crucial findings above are solved, the negative impacts of the other facts may be easily solved.

## 6. CREATING OR PARTICIPATION IN INTERNATIONAL PROJECTS

The first step to handle an international project needs a detailed study on the existing related projects and probable partners. This study will help you to define your topic clearly and select suitable partners. You can also benefit from the experiments of the others and establish communication with the project participants to receive further information. Based on this study you can define the content of your project which meets your requirements.

Once you define the content of the project you can create an action plan which covers the steps of the project. The initial document should cover the aim, objectives; project management structure, financial details, action plan and related tasks based on a time schedule, the direct and indirect relations with existing and projects/programmes. Then you can start to find suitable partners sending this document to interested parties. It is also important to receive national and international funds which may support your projects. The beginners are advised to participate in an existing project rather than to start a new one.

Having the sufficient number of partners and suitable funds you can start the projects.

The following steps are advised for initiating and organizing international projects:

a. Identification of the Project:

The name, aim, objectives, goals and tasks of the project should be identified clearly. The role and tasks of the participants should be determined. The links with the other international projects should be defined and if necessary, initial contact with the coordinators of such projects should be established.

b. Identification of Requirements:

The identification of the requirements to complete the project is one of the key issues and should be decided after establishment of the project management. To achieve that opinion of the participants and other related institutions should be obtained. This can be achieved by meetings, communications and submission of the questionnaires. The requirements to support project which will be determined using several methods will obtain the progress of the project on the right track and will obtain reliable results.

c. Requirement for Innovation:

A well prepared project is expected to lead new innovations. A project is also a tool to

Test and evaluate the results of new innovations. The projects may lead better results if the participants are able to get maximum benefit from related innovations. The planners should carefully consider innovation requirements before initiating a project. The perfect identification of the innovation requirements and tools to be used for innovations will ensure the results of a project.

d. Provision of a Network in support of the project:

In order to achieve coordination and cooperation a network should be established. This network will create harmonization and synergy. The information exchange can be actualized through this network as well as serving a search machine for all users. Nowadays many professions have already established common communication platforms and get benefit for international cooperation.

e. Project Management:

The institution which submits the projects will assume the overall control and

coordination of the project. In order to secure the project management permanent project staff and Ad hoc project groups should clearly define including their Terms of Responsibilities (TOR). Permanent staff should contain project coordinator and sufficient number of staff who will act as project officers, technical and administrative staff (UKOLN, 2013). The staff working hours and working schedule (if possible) should be submitted all respective parties to avoid any possible interferences with formal departments.

The achievement of the organization is closely related to the links between the own goals of the employees and the aims of the organization and, that also achieve organizational commitment of the workers (Bozkurt & Yurt , 2013). For a project to be successful, the people in charge of the project should be selected from the departments consistent with the objectives of the project. During the initial negotiations with other partners, they are also advised to do so. This will facilitate handling the project and also strengthen the links between project officers in different countries and organizations.

For external organization, the project coordinators/managers should be agreed upon, defined and submitted for the cooperating institution. The project teams/working groups should be defined in coordination with the other institution to ensure that all objectives are covered by project teams. The tasks of the each team/group and deadlines of the each group works must be clearly identified. To achieve a satisfactory coordination between project management team and groups including meetings, all communication arrangements are to be established. Normally establishment of a steering group will secure the operation of the system. The ad hoc working groups/parties may be defined at the beginning or steering group may be authorized to establish such groups when required. All these information should be submitted to all concerned parties in the main project document.

f. Dissemination of the Information gathered / collected:

The dissemination of results of projects at each step and at the completion of the project has an utmost importance to share the results of the studies. We should keep in mind that each project is possibly related to a previous project or may be a start for a new project. MET projects carry a significant value not only for participants but also for all maritime community and the results should be shared by intellectual property is protected.

## 6. CONCLUSION:

World maritime community has a great advantage having an internationally organized and recognized MET system for seafarers. This situation facilitates cooperation through common understanding. The common aim is to create better education systems for the world maritime community. Taking advantage of the opportunities offered to us by technology and using advanced coordination and cooperation techniques we can achieve it.

It is approved that the international projects are more feasible than in house studies. These projects create synergy and a platform for transfer of knowledge and innovations. A project which creates an innovative approach will be valuable not only for participants but also for all MET community. The joint projects developed so far will be good examples for the future activities from which we will benefit greatly.

A well-established organization is the key issue to achieve the aim and objectives of a project. It is fairly / quite important for the international projects which are handled by researchers from different cultures and environments.



Nowadays the number of international conferences and meetings in different fields are gradually increasing. This kind of forum is the best platform for introducing or initializing new projects. The IAMU and IMLA meetings which are held with the participation of large number of the MET experts have been used as perfect platforms to create a favourable environment to initiate or launch international projects. The inclusion of ‘International Cooperation Proposals’ in the agenda items of related meetings and conferences is considered very suitable in this regard.

#### REFERENCES:

1. BIMCO/ISF (2010), Manpower 2010 Update, Dalian Maritime University and Warwick University Institute for Employment Research
2. Ziarati R. & Demirel E., 2011, 2, International Cooperation for Maritime Education And Training IMLA 19 Conference Proceedings, Opatjia, Croatia
3. STCW 78 (2010) convention, IMO, London, 2010
4. Schröder et al, ‘The Thematic Network on Maritime Education, Training Mobility of Seafarers (METNET): The Final Outcomes’, Vol. 3, No. 1, June 2002.
5. Yongxing, J., and Ruan, W., Understanding of the Impacts of the International Maritime Conventions and Rules upon Maritime Education and Training and the Strategies there of, IMLA, 2009, Ghana, 2009.
6. Ziarati R., “Establishing a Maritime University in Turkey”, A paper for consideration by Turkish Higher Education Council (YOK), 2005.
7. Ziarati et al, Leonardo Pilot Project Safety On Sea (SOS), 2005-2007 ([www.mareduc.co.uk](http://www.mareduc.co.uk))
8. Ziarati et al, Ziarati, M. ‘SURPASS Leonardo Project 2009-2011 No: 2009-1-TR1-LEO05-08652, ([www.c4ff.co.uk](http://www.c4ff.co.uk))
9. Ziarati et al ‘MAIDER Leonardo Project 2009-2011 No: 2009-1-NL1-LEO05-01624, ([www.c4ff.co.uk](http://www.c4ff.co.uk))
10. Ziarati et al, Innovation In Maritime Education And Training, IMLA 18 Proceedings, Shanghai, 2010
11. CHSS (Corporate Health Safety Solutions), Internal Influences on Health and Safety, CHSS Ltd, 2006
12. Kocel T., İşletme Yönetimi (Business Management), Beta Basım Yayın, Istanbul, 1998
13. Dessler G., A Framework for Management, 2nd Edition, Prenhall Co., 2001 ISBN-13: 978-0130910332
14. UKOLN (UK Office for Library Networking), Technical Advisory Service Manual: Section 1-Human Resources Programme, 2013 (<file:///C:/Users/edemirel/Desktop/ICHQ/nof-digitise%20Programme%20Manual%20%20Human%20Resources.htm>)
15. Bozkurt O. & Yurt I., A study to determine the organizational commitment level of the academicians, Journal of Administrative Sciences, Onsekiz Mart University, 2013/Vol:11 No:22, Karınca Ajans Ankara, 2013 ISSN: 1304 5318
16. MariFuture Project Proposal, Strengthening European Maritime Education Research, and Innovation for FUTURE Competitiveness (MariFuture), C4FF, 2010( [www.marifuture.org](http://www.marifuture.org))
17. Sailahead Project (<http://www.leonardodavinci-projekte.org/adam/project/view.htm?prj=6901>)
18. Captains Project( [www.captains.pro](http://www.captains.pro) )
19. MarTEL Plus Project ([www.martel.pro](http://www.martel.pro) )
20. UniMET Project( [www.unimet.pro](http://www.unimet.pro) )

## The Study Of New Methodology

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### ABSTRACT

The methodology of the social sciences can be found in Europe in 1920, when the psychological aspects of the experimental research method was the nation, while case studies in the United States were in 1940s, when experimental study was firstly applied. After that, criticism began. Quantitative methods began to be used from the 1960s, on the other hand, qualitative research was actively visible in the 1970s in Germany. Different research methods controversy began. The studies were in the United States and Europe. You have any questions in a variety of academic backgrounds. ?? In this study, I will suggest a new methodology.

**Keywords:** *inter-subjective(IS)Experirience(E)Language(L)  
Communication(C)*

### INTRODUCTION

The process of this study can be outlined as follows .Firstly, methods have been studied, namely; objective knowledge of the target value and the understanding of complex social phenomena. Secondly, the objective was to investigate the knowledge system. A variety of social phenomena, the minimum needed to understand the value and the subject. Thirdly, the social phenomenon of objective knowledge has been studied because it was a need to solve the social problems of methodology. Fourth, the research methodology, the value of knowledge and the target were described in order to understand the social phenomenon and to understand the value and the smallest unit which is the target where and how to start. Finally, the unit of mutual subjectivity, experience, language, and communication of knowledge systems have been resaerched. The value of a social phenomenon and the smallest unit of the target by means of objective knowledge that can be described. The methodology is beginning to look, the reason for this study from the objective knowledge because it is how to find the truth. I started this social phenomenon that began in religion. The information shows that the process of understanding a social phenomenon in the course of this conversation, the language is used to develop a body of knowledge. Additionally, depending on the number of discovered ideas began to prove (William E Hocking, 1959: 152). Thus, the development of methodologies that could be probable. Objective knowledge of social phenomena is developed as a tool to explain. Thus the process of understanding a social phenomenon of the elements is formed to objective knowledge. Inter-subjectivity, experience, language, and communication. In this context, the objective forming the knowledge is knowledge system to study the possibility of the methodology that can be utilized as sufficient. This demands a social phenomenon occurs if the value in what conditions? How do you create the object ? And do they make some kind of relevance? Finding and relevance of academic. In addition, the methodology and the need to find the means of the target value and the relevance of the knowledge system has been established. In this process, the methodology of logicity has been completed. Methodology bases on the need to verify the authenticity of the potential, the potential falsification, and the fact that a causal relationship exists. Thus, this research is to deals with a new methodology of knowledge. The scope of the research community and the target value in understanding the phenomenon of a minimum unit is one of the objectives of the study. Configuration Factors knowledge range describes that the smallest unit of knowledge is mutually subjectivity, experience, language, and communication to achieve objective knowledge of the process. The process of the development of social phenomena, and experience are the value of the individual the subject. And also to the knowledge of objective knowledge is usually. Scientific knowledge of the procedures and processes in a range of studies prove it. So that, logical process is repeatable and reproducible. The contents of the research is as follows. First, the social phenomenon of inter-subjectivity, the subjective value and target language and communicate ideas and experiences made up of objective knowledge. Second, Dilthey, according to the common knowledge and experience of individual knowledge. This is the rationale of knowledge. Thus, the process of generalization of knowledge through experience, the content of this study. Third, the process indicates that objective knowledge is a social phenomenon worthy of study content andit is targeted by the inter-subjectivity of the language and communication. Fourth, the possibility of comparison. The possibility of the use of policy-making basis for these

findings was a case study of the new methodology.

## II . STUDIES POCEDURE

Looking at the methodology of previous studies, it can be seen that the methodology is developed through phenomenology, hermeneutics, and grounded theory. In the process of understanding social phenomena phenomenology, hermeneutics, critical care and the development process of Metaphor, each methodology is limited. Was little understanding of the era. And impact. Society for understanding the phenomenon, but many of these methods are complex for understanding the limitations of modern society. Therefore, in this respect it've done previous studies. How to integrate each level of the new methodology to find the minimum unit of objective knowledge of the research point of view.

### *Phenomenological study*

The objective was to take advantage of the knowledge. And phenomenology in Husserl (1938) according to the life in the world to observe the structure of human consciousness. Structure of inter-subjectivity and consciousness appears as a social phenomenon in the world of living things. Interaction between members of a particular life was in the world (Dukes, 1984; Giorgi, 1985; Polkinghorne, 1989). They are conscious of the structure of the interaction, but this study did not prove knowledge of the objective. However, these studies are of inter-subjectivity, one that distinguishes between subjective and objective clear. Develop a more autumn look at these dimensions, the value of social phenomena, and the target is described by a generalization that can be described as objective knowledge could be a rationale.

### *Hermeneutic study*

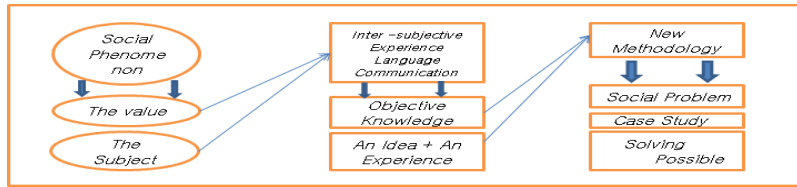
Harbermas (1972), according to the actor's life circumstances change in the flow of the process is described. Hermeneutic study the behavior of the individual as the basic unit that reports, Because affected. Depending on the language and communication Understanding social phenomena and the target value is means that the situation can be changed. Denzin & Lincoln (1998: 3) According to the understanding of social phenomena using the language required. And in the process of communicating the knowledge creation. (Frankfort Nachmias & Nachmias 2002: 14) According to the doctor to deliver the hermeneutics as a methodology. And that can explain the reason. These studies is that the creation of new knowledge discovery methods can be considered. Social phenomena to understand the value and the target varies depending on the situation and individual actors, as well as personal reasons in the course of language and communication. However, the more sophisticated theory to materialize, If you configure an objective knowledge of the academic body of knowledge would have been more significant. Research methodology utilized in this dimension that the possibility to provide a rationale. Subject to changes in the value of a social phenomenon and the process. Grounded Theory accumulating empirical data to mean that the theory. For the purpose of scientific knowledge production. In this study, the rationale is to objectively derive knowledge about the generality of knowledge systems capable of providing a reliable. above can be applied as the objective knowledge of the theoretical background of knowledge was applied. Review of phenomenology, hermeneutics, grounded theory methodology, the smallest unit of mutual subjectivity, experience, language, and communication by applying.

## III . RESEARCH FRAEMWORK

Social studies as a model of how the value of the target to the objective phenomenon that can be described as the smallest unit of knowledge was applied. Boulmer (1995), according to the knowledge of the causal nature of the procedural knowledge of the application process should be demonstrated objectively. The reason for this is the true nature of social phenomena, the researchers because they can not understand all. And what theorists also because it determines whether study. World experience in order to apply the essence of the methodology.

Thus, a variety of objective knowledge in order to understand social phenomena should be able to explain the value of the target in accordance with the notion of authenticity. This is because an agreement has been made. Means, including the perspective and experience of the combined methodology will be applied to understanding social phenomena. This in mind, the process of integration proposed research model. The contents are <Figure 3-1> below.

Table <Figure 3-1>



**Configuration information** For the study, the value of social phenomena in the target selection. In this study, the experience of the process of obtaining the cross-sections were phenomenology of subjectivity. Analysis of the language and content of communication were objective knowledge of objective knowledge of the topics to study topics ranging process was devised their thoughts and experiences. This configuration, you want to take advantage of social science methodology was constructed case studies of social problems. Research topics and policy decisions were actually understand how a social phenomenon appeared in.

**IV. CASE STUDY**

Using elements of the policy case studies for the following reasons. Kingdon (1991) was, according to the policy issues that I was involved in, the perception and interpretation. Thus, in the case of Fukushima and Chernobyl were applied to the case study. For the study, the energy policy decisions compared participants' decision-making behavior of political, economic, social, environmental and renewable energy share in the decision-making process were investigated differences in methodology. Targets in Korea and Germany.

**Korea**

Social phenomena in terms of value and resolve potential subjects were investigated. The issue of the Fukushima nuclear accident. In addition, inter-subjectivity of the new methodology for objective knowledge, experience, language, communication, the notion of knowledge and experience were included. The results are as follows. First, the political aspects of an individual's thoughts, but there was no objective knowledge of inter-subjectivity. Personal experience and has all the need for objective knowledge. However, objective knowledge about language does not appear in the individual's consciousness. Only personal experience will not occur and communication is not expressed in objective knowledge. Second, was expressed in terms of the economy, inter-subjectivity by objective knowledge and experience. The need for objective knowledge is to know the language, but communication is not represented as an individual's values and experiences. Third, the social aspects of objective knowledge about the inter-subjectivity does not appear at all. However, objective knowledge is expressed as part of the experience. For example, we know how dangerous Fukushima accident of scientific knowledge and common sense. Although the language is obviously aware of previous studies, lack of communication saw a survey by. Fourth, the environmental side of the objective knowledge appear. But it is lack of inter-subjectivity in terms of experience. However, part of the personal experience of using a language that is to be recognized. But it does not develop communicative situation objectively affects society as objective knowledge. Finally, in terms of the development of renewable energy does not have objective knowledge on issues of inter-subjectivity. Lack of experience on the issue in this way. Language also has a personal factor. However, it is still difficult to develop objective knowledge and experience through consensus. These findings are below <Table 4-1>.

< Table 4-1 >. Case Study

New Methodology		Korea's Energy Policy				
		Political	Economic	Social	Environmental	Renewable Energy
Objective Knowledge	Inter - Subjective	×	○	×	○	×
	Experience	○	○	○	×	×
	Language	×	×	○	○	×
	Communication	×	×	△	△	△

### Germany

The issue of the Fukushima nuclear accident was investigated possibilities to solve social problems. Social phenomena in terms of value and the target, and the new methodology was studied. Inter-subjectivity, experience, language, communication, and the notion of objective knowledge by experience were included. Germany is the only dimension of the experience of the Chernobyl nuclear accident have never experienced. The contents are as follows. First, the political aspects of the inter-subjectivity of objective knowledge is displayed. Experience, too. Objective knowledge is through communication to the development of citizens coming out to the streets. Thus can be seen that the development of objective knowledge already reached social consensus decision making process step to affect. Second, the economic aspects of objective knowledge is different. Objective knowledge is excluded. On the issue of inter-subjectivity as a means of solving social problems. Similarly, unlike the experience in terms of the language appears. This means that despite the many challenges of a completely different energy policy decisions. Germany is recognized as objective knowledge in communication. Third, the social aspects of the inter-subjectivity of objective knowledge is displayed. Experience as expressed through language as a social institution as a policy objective knowledge of reliable communication. For example, the energy-related policies can be seen that the bill is passed. Fourth, in terms of the environment by objective knowledge, agrees. inter-subjectivity, experience, language, and overall communication. This appears as part of the consent of the people. Finally, renewable energy to solve the problem in terms of the social role of being the largest. By active participation and inter-subjectivity, experience, language, and communication in personal and corporate. This content to be described <Table 4-2>.

< Table 4-2 >. Case Study

New Knowledge		Germany's Energy Policy				
		Political	Economic	Social	Environmental	Renewable Energy
Objective Knowledge	Inter - Subjective	○	×	○	○	○
	Experience	○	×	○	○	○
	Language	○	×	○	○	○
	Communication	○	○	○	○	○

### V. CONCLUSION

As a result of this study, the following results were obtained. First, the possibility of objective knowledge was found as described. The notion of individual subjectivity and objective knowledge of the target mutual understanding in the social sciences. Second, the objective forms of knowledge systems was confirmed. Personal experience of the value of expression when the target language and social phenomena that can communicate. Third, the methodology is applied to compensate for the problem and found a theoretical possibility. As a result of a case study to understand social phenomena, and found a new methodology for solving the possibility that social problems. Fourth, the implications for academic obtained. From the perspective of a new methodology in the social sciences can explain knowledge. Finally, we look forward to the follow-up study. In order to solve the social problems concerned with understanding and leveraging the methodology of knowledge to explain possible.

### REFERENCES

- Alfred Schutz & Thomas Luckmann. (1959). *The Structures of Life World*. Volume II. Northwestern University Press Evanston.
- Bleicher. (1982). *Contemporary Hermeneutics & The Hermeneutic Imagination*. London: RKP.
- Chris Lawn and Niall Keane. (2001). *The Gadamer Dictionary*. Typist by Fakenham Prepress Solutions Ltd. Printed and bound in India.
- David Carr.(1970). *The Crisis of European Sciences and Transcendental Phenomenology " An Introduction to Phenomenological Philosophy"*: Northwestern University Press.
- Denhardt, Robert B.(1981). In *The Shadow of Organization*, Lawrence: The Regents Press of Korea.

- (19,991). Age of organization and human imuiyoung station. Seoul, TaeJin Publisher
- Dieter Stein & Wright. (1995). Subjectivity and Subjectivisation " Linguistic Perspectives" Cambridge University Press.
- Farmer, David J. Gangsintaek Station (1999). "Administration of the language." Bakyoungsa.
- Financial Times. (2010). Zehntauswnde protestieren gegen Atompolitik. 2010.9.18.
- Frank Schalow (2011). Heidegger, Translation, and the Task of Thinking " Essays in Honor of Parvis Emad" Spinger Dordrecht Heidelberg London New York.
- Osborne, Grant R. (1991) The Hermeneutical Spiral : "A Comprehensive Introduction to Biblical Interpretation", Downers Grove: Intervarsity Press.
- Richard M. Zaner and H. Tristram Engelhardt, Jr(1973). The Structures of the Life - World. Northwestern University Press Evanston.
- Gardamer. (2001). H-G, Gadamer in Conversation: Reflections and Commentary, with Karsten Dutt et al.), edited and trans., Palmer, Richard E., New Haven: Yale University Press.
- Habermas. (1981). Theory of Communicative Action.
- Habermas. (1992). Between Facts and Norms.
- Hans-Georg Gadamer. (1975). Truth and Method. London: Sheed & Ward.
- Husserl, E. (1970). The Crisis of European Sciences and Transcendental Phenomenology. Evanston: Northwestern University Press.
- Jason Paul Bourgeois. (2007). The Aesthetic Hermeneutics of Hans – Georg Gadamer and Hans Urs von Balthasar. Peter Lang Publishing, inc.. New York.
- Kim Yeon Soo · Michael Mayer. (2013). "A Comparative Study of the Energy Policy Making of South Korea and Germany" with focused to Hermeneutic Methodology, Korean Comparative Government Review, 17.(1). 95-124.
- Kim Yeon soo· Kim Hyung Min· Oh Soo Gil (2013). The direction of change in the value of urban planning study on the perception, "South Korea Local Government Studies", 15 (1), 69-84.
- KIM Yeon Soo·Lee Sang Yup. "A Study of Stakeholder Behavioral Appearance Process for Unification of Germany" with focused on Phenomenological Methodology, Korean Comparative Government Review, 2013. 17. (2). 49-72.
- Kirkhart, Larry. (1991). Toward a Theory of Pubic Administration, in Frank Marini(ed.). Toward a New Public Administration. New York: Chandler Publishing.
- Öko Institute. (2000). Energiewende 2020: Der Weg in eine zukunftsfähige Energiewirtschaft.
- Osborne, Grant R. (1991) The Humeneutical Spiral : "A Comprehensive Introduction to Biblical Interpretation", Downers Grove: Intervarsity Press.
- Rijk, Peer de. (2001). Neclear Energy in the New Century : the Being of the End. Asia Forum of Nati-nuclear Power, 9(14):51-70.
- Roose, J.. (2010). Der endlose Streit um die Atomenergie. Konfliktsoziologische Untersuchung einer dauerhaften Auseinandersetzung . In Feindt, P.H., Saretzki, T. (eds.). Umwelt – und Technikkonflikte. Wiesbaden: VS Verlag.
- Rüdiger, W.. (2000). Phasing Out Nuclear Energy in Germany. German Politics. 9(3): 43-80.
- Walter L. Wallace. (1927). The Logic of Science in Sociology. Cicargo. Press. Sociological Methodology(2nd ed.). AEMnamjaebong, HANUL Academy .
- William Outhwaite. (2009). Habermas A Critical Introduction, Polity.
- cafe.daum.net/sangjurnw/7DTi/550(Kim Young Tae).
- <http://news.sportsseoul.com>).
- <http://www.infowars.com>).

## Preparing The Future Faculty Workforce By Analyzing The Postdoctoral Experience

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### ABSTRACT

To develop a curriculum for post-doctoral trainees and to determine the requirements and needs for such a program, a needs assessment study was performed. By using a survey-questionnaire, we were able to evaluate former post-doctoral trainees' experience and their later career outcomes. Our data shows that, across the time studied at our Institution, research science training proved to be outstanding; instruction in presentations and writing skills was reported to be low-average, while preparation in teaching, career development, and faculty dynamics was clearly insufficient. Taken all together our data indicates that in order prepare the next generation of higher education professoriate, we should seriously consider to develop a more comprehensive postdoctoral research training program in which trainees will acquire not only research skills but also teaching, writing, and other valuable expertise for improving their chances on becoming successful teachers and scientists.

### Keywords:

### INTRODUCTION

With increasing competition for positions intended for Ph.D. degree holders, to be eligible for appointments at the level of Assistant Professor in the Universities or the equivalent in government and private laboratories, some years of postdoctoral training are essential (Muniyappa 2007). The importance of a well-trained workforce of postdoctoral scientist is unquestionable. They are the next generation of researchers and higher education teachers. During their postdoctoral studies, these emerging scientists need to learn the essential skills required for an independent career under the supervision of a reputable and committed mentor. Postdoctoral trainees must use this period on their careers to expand their research interest, become familiar with new scientific perspectives, as well as new and current approaches, learn more laboratory techniques and skills, learn grant writing and laboratory management, master departmental dynamics in addition to teaching responsibilities.

The Association of American Colleges and Universities in 1993 created a program (Preparing Future Faculty program or PFF) supported by the National Science Foundation, as an initiative designed to develop alternative models of professoriate preparation (Association of American Colleges and Universities 1997; Pruitt-Logan, Gaff, & Jentoft 2002). These types of programs should be tailored to each individual institution and launched to help on the success of the future faculty in their early careers. Programs created under PFF entail specially the transformation of doctoral programs around the country, offering curriculum opportunities directed to master important faculty skills such as teaching, research and service. Regrettably, many of the higher education institutions have focused mainly on research activities rather than a well rounded program for their postdoctoral appointees.

Presently, the NIH and NSF has expressed concern for the apparent decline in teaching, career development, grantmanship, ethics and other type of skills in this future faculty workforce. As a result, they recommend some type of discussions at local and national level as well as collaboration among institution of higher education to create a high quality postdoctoral training experience. This concern has been taken into consideration by many Colleges and Universities, and the establishment of postdoctoral associations and postdoctoral training programs started emerging in recent years. Accordingly, our Institutions have to be committed to provide excellence in the post-graduate experience. The Baylor College of Medicine is considered one of the top medical school in the US and research

institution in the United States. Traditionally in this school, medical residents, medical and graduate students have a valued, positive experience as well as an excellent career outcome (Owerbach 2007). However the preparation of postdoctoral trainees for a faculty career has been somehow neglected over the years, what will have a negative repercussion in the future junior faculty trained at this institution and eventually in the reputation of the school. To close this gap, in this manuscript we offer a straightforward approach to help in the curriculum development of a post-graduate training program. A needs assessment study was prepared, which consisted on a survey followed by a questionnaire. The primary survey was conducted to assess the career outcome of former postdoctoral trainees, to evaluate the evolution across the time studied, as well as to collect demographic data. The questionnaire was designed to voice out, from experience, the effectiveness of the program by a retrospective evaluation of the participant on their training while in the postdoctoral position. In this section of the needs assessment, the participants were asked to rate their postdoctoral experience regarding research, career development, Faculty dynamics, writing skills, presentation skills, as well as teaching. Our data shows that, across the time studied at this Institution, research science training proved to be outstanding; instruction in presentations and writing skills was reported to be low-average, while preparation in teaching, career development, and faculty dynamics was insufficient. It is our goal that the evaluation and analysis of these data will lead to the creation of a post-graduate program that will provide an attractive training environment that prepares our post-graduate trainees for the next level in their career. This type of approach and evaluation can be followed at most institutions of higher education.

## **METHODOLOGY**

### **Questionnaire Construction**

In order to develop a curriculum for postdocs and to determine the requirements of such a program, we designed a needs assessment questionnaire to evaluate former postdoctoral trainees' experience and their later career outcomes (see Appendix 1). The questionnaire was designed using a tailored procedure (Dillman 2000). Several elements that relate to post-graduate training had been previously identified (DeNeef 2002; Adams 2002). Accordingly, we developed an initial 40-item questionnaire, in which 10 items were related to research training, 10 items were related to teaching, and 20 items were related to career development issues. This last category was further divided into 6 items for presentation skills, 4 items for writing, 5 items for career development, and 5 items for faculty and departmental dynamics. Two additional steps were taken to ensure that the item content was representative of each category being measured. First, the questionnaire was distributed among the current Faculty at our institution for their critical opinion and feedback. They confirmed that items were appropriate; however, they noted that some items overlapped among several areas or were not placed in the appropriate element to be measured. Second, interviews were set up with current postdoctoral trainees not included in the study (with appointments from 2006 to 2008) to refine the quality of the items, by asking them what was important for them in a post-graduate training program to achieve a well-rounded postdoctoral experience. As a result of these steps, we developed a final 31-item questionnaire, in which 5 items were related to research training, 6 items to teaching, and 20 items to career development issues. This last category was again further divided into 6 items for presentation skills, 2 items for writing, 6 items for career development, and 6 items for Faculty and departmental dynamics.

To answer the questionnaire a Likert scale was used. For data analysis purposes, and to rate their postdoctoral experience in research science, career development, faculty dynamics, writing skills, presentation skills, as well as teaching, numbers were assigned as follows: 1 = very insufficient, 2 = insufficient, 3 = average, 4 = satisfactory, and 5 = very satisfactory. At the post-graduate level, Institutions should be committed to maintaining the highest standards of training and to providing a program sufficient to ensure, that upon completion, the trainee can function independently as a scientific professional. Thus, in this study we considered that all the items that receive a score lower than 4 (satisfactory) should be revised and improved in the future postdoctoral training program to be created. Additionally, the survey section of the needs assessment was designed to obtain data related to demographics and career outcome after the postdoctoral training. A final section was added to the questionnaire in which the participants were free to make additional comments.



## Participants

Former postdoctoral trainees from The Baylor College of Medicine from 1980 to 2005 represent the sample in this study (n=195). Recruitment of participants was made through the Postdoctoral Association and departmental records. This study was approved and reviewed by the Institutional Review Board for Human Subject Research at The Baylor College of Medicine. Surveys and questionnaires were e-mailed to the participants together with an explanatory letter describing the rationale for the study and giving detailed instructions for completing and returning the questionnaire. Participants were assured that responses will be kept anonymous and confidential. After a month, the non-responders received follow-up letters and questionnaires. After an additional month, remaining not responders received again a follow-up letter and questionnaire.

## RESULTS OF THE STUDY

One hundred ninety five individuals were identified and included as participants for this study. Eighty seven out of 195 (45%) completed and returned the questionnaire. Because of the demographic questions included in the questionnaire, we were able to analyze the evolution of the postdoctoral training from the 1980's to 2000's in terms of gender, ethnicity, duration, productivity, funding, etc. Our data indicate that presently (2000's), gender and ethnicity are more equally represented than in the 1980's. At present, women hold a very substantial representation (66.7%) compared to female representation more than twenty years ago (0%). African-Americans and Native American/Alaskans are still underrepresented, while Hispano/Latino kept a steady representation across the time period studied (33.3%). Naturally, this can be a consequence of the geographical setting of the study (Texas), where the Hispano/Latino population is in all probability one of the main diversity groups.

Several facts provided further information about the evolution of the post-graduate training experience. The length of time a PhD spent as a postdoc has increase over the time. While the posdocs whose doctorates were earned in the 1980's and 1990's spent 4 and less than 3 years respectively in that type of appointment, for those whose doctorates were earned in the 2000's this figure has risen to 5 years, and some of the respondents were still in postdoctoral positions. If we analyze the short-term changes in labor market conditions during the 80's and 90's, this fact is not surprising for two specific reasons: 1) the proliferation of Bio/pharmaceutical companies that frequently offered jobs to PhD degree holders with none or low postdoctoral experience; and 2) the availability and uncompetitive nature of tenure-track and other positions in academia. Even though the post-graduate training is longer, the number of postdoctoral grants awarded has decreased considerably (from 33.3% in the 1980's to 0% in the 2000's). While two decades ago, postdoctoral trainees were encouraged to apply for widely available awards, at the present time these type of awards are very competitive and difficult to obtain. Moreover, frequently postdocs are included as key personnel on federal or foundation grants from their mentors and advisors rather than letting them apply for individual awards. The number of publications has decreased considerably as well (from 11 in the 1980's to 3.3 in the 2000's), again due possibly to the increase competitive and demanding nature of the scientific journals. However, compared to the 1990's the percentage of postdocs that published a manuscript during their training is considerably higher (going from 60% in the 1990's to 100% in the 2000's) and very comparable to the publication levels achieved in the 1980's. Related to career outcome, and across the time studied, former postdoctoral trainees held jobs primarily in academic institutions with mainly research responsibilities. This trend has been steady for over the past 25 years. However the number of tenure-track positions, as the first job upon completion of the post-graduate training, declined dramatically in the 2000's. Appointments at the level of Assistant Professor with tenure-track in the universities or the equivalent in government and private laboratories are scarce and have reached a high level of competitiveness. Thus, currently most of our postdoctoral trainees choose to follow a higher degree of training as Instructors or research assistant professors, which are non tenure-track Faculty appointments.

When analyzing the training they received while at the postdoctoral appointment, research and science training proved to be outstanding (Figure 1). Across the time studied, training in problem solving, professionalism, ethics,

laboratory skills and experimental design was exceptional. The program was also well considered regarding presentations and writing skills (Figure 2), although some aspects of this training such as presentations directed to job interviews, English proficiency for foreigners and use of technology were deficient. Development of teaching skills resulted to be insufficient for this type of trainees (Figure 3), as well as all aspects of faculty dynamics presented (Figure 4) and career development issues (Figure 5).

## CONCLUSIONS

Most Colleges and Universities want faculty to be effective teachers, competent researchers, and active participants in academic life. However, there is a disparity between post-graduate training and the demands for new faculty. Frequently, the same institutions that require service, teaching and research skills in their new hires have not modified themselves their post-graduate programs to address these responsibilities on the next generation of professoriate. In this study and by using a survey/questionnaire as a needs assessment, we offer a tool to identify key content areas to help in the development of a postdoctoral training program. Moreover, we were able to describe the career outcomes of former postdoctoral trainees, analyze the impact of their training experience on career development, as well as the respondents' recommendations for changes and improvements in future postdoctoral research training programs. We believe that this type of questionnaire can be successfully used by others to define the needs for changes in their own postdoctoral programs.

To create a postdoctoral training program, all Institutions should be committed to maintaining the highest standards of training and to providing a program sufficient to ensure that the trainees can function as independent scientists and professional teachers. In our case, and after evaluating the results of this study, we started implementing this philosophy and initiated some necessary changes. We are taken two important steps leading to a more elaborated and well-rounded post-graduate training program. First, we are embracing the compact between postdoctoral appointees and their mentors, created by the Association of American Medical Colleges in December 2006 (Association of American Medical Colleges 2006). Second, we are investing in a Postdoctoral association, which will be concerned about problems related to the postdoctoral trainees. Additionally, a responsible institutional official (named Senior Associate Dean for Postdoctoral Affairs) was named to provide oversight on post-graduate matters, such as quality of postdoctoral training, mentoring, and flexibility in career choices, among others (Association of American Medical Colleges 2006). As recommended in the compact between postdoctoral appointees and their mentors, the next generation of postdoctoral trainees will enjoy a complete program in which individuals will be trained to "independently formulate meaningful hypotheses, design and conduct interpretable experiments, adhere to good laboratory practices, analyze results critically, understand the broad significance of their research findings, and uphold the highest ethical standards in research. The development of additional skills, including oral and written communication, grant writing, and laboratory management, will be considered integral to this training. Effective mentoring will be critical for postdoctoral training and will require that the primary mentor dedicate substantial time to ensure personal and professional development. Postdoctoral appointees will have training experiences of sufficient breadth to ensure that they are prepared to pursue a wide range of professional career options. Effective and regular career guidance will be essential and should be provided by the mentor as well as by the institution" (Association of American Medical Colleges 2006). The curriculum for such a program is coming; however we will need several years after its implementation to assess the outcome on the future faculty workforce.

## REFERENCES

Adams, K.A. (2002). *What colleges and Universities want in new faculty?* Number 7. Washington, D.C.: Association of American Colleges and Universities.

Association of American Medical Colleges. (2006). *Compact Between Postdoctoral Appointees and Their Mentors*. Washington, D.C.: Association of American Colleges and Universities.

Council of Graduate Schools & the Association of American Colleges and Universities. (1997). *Preparing Future Faculty: A National Program*. Washington, D.C.: Association of American Colleges and Universities.

DeNeef, A.L. (2002). *The preparing future faculty program: what difference does it make?* Number 8. Washington, D.C.: Association of American Colleges and Universities.

Dillman D. (2000). *Mail and Internet surveys: The tailored design method*. New York: Wiley.

Muniyappa, K. (2007). The role of postdoctoral training for careers in research and higher education. *Current Science*, 92, 450-454.

Owerbach, D. (2007). *Description of career outcomes and the relationship between research productivity and appointment to tenure track jobs of individuals who have earned a Ph.D. degree from Baylor College of Medicine*.

Master of Education Thesis. Texas: The University of Houston Press.

Pruitt-Logan, A. S., Gaff, J. G., & Jentoft, J. E. (2002). *Preparing Future Faculty in Science and Mathematics: A guide for change*. Washington D.C.: Association of American Colleges and Universities.

Appendix 1

Survey-questionnaire

**BCM** BAYLOR COLLEGE OF MEDICINE  
 DEPARTMENT OF MOLECULAR PHYSIOLOGY AND BIOPHYSICS (MPB)

Dear colleague:  
 Our department values your feedback. Please fill out the following survey/questionnaire and return it via e-mail (mv@bcm.tmc.edu), fax (713-798-3475) or regular mail (address below). Your feedback is completely anonymous and confidential.  
 We really appreciate your participation!  
 Date:

Please, complete all requested information (for all dates give month and year)

1. Male  Female

2. What  Hispanic/Latino  African American/Black  Asian  Other (specify)

3. What is your country of origin?

4. Postdoctoral Program at Molecular Physiology & Biophysics (MPB): Lab From To

5. Other postdoctoral appointments: Institution From To

6. Do you have another higher degree, such as a medical, law, pharmacy or educational degree?  
 Degree: Institution:  
 Degree: Institution:  
 Degree: Institution:

7. Professional Experience: Complete sections A and B below regarding your professional experience. From the year you finished your postdoctoral appointment with MPB to present, indicate positions you held either in A) academia (universities, medical college, schools...) or B) non-academia (industry, consultant, business, or other non-science careers).

Dates		Academia					Title		% Effort			
From	To	Teaching (C or S)	Colleague	Univ	Med School	Non-Tenure Track	Tenured or Tenure Track	Research	Teaching	Admin	Other	

Return questionnaire to: Maria Victoria Tejada-Simon - Dept. Mol. Physiology & Biophysics, Baylor College of Medicine, Mail Stop B-CM033, One Baylor Plaza, RM BCM-Tab Building T415, Houston, TX 77030 Tel: 713-798-7919 Fax: 713-798-3475, e-mail: mv@bcm.tmc.edu

10. Intellectual property/Patents. Indicate Patents you established (include also the ones from your postdoctoral years)

Intellectual property/Patents	Date	Application during postdoctoral position at MPB

Return questionnaire to: Maria Victoria Tejada-Simon - Dept. Mol. Physiology & Biophysics, Baylor College of Medicine, Mail Stop BCM333, One Baylor Plaza, RM BCM-Tab Building T415, Houston, TX 77030 Tel: 713-798-7919 Fax: 713-798-3475, e-mail: mv@bcm.tmc.edu 4

11. Please, rate your postdoctoral training level at MBP by checking your responses to each of the points below according to the provided scale. Training is defined as preparation, guidance and/or instruction delivered either by your Principal Investigator/Advisor or in form of course/workshop. You will have an opportunity to add comments below the table if you wish:

- A = Very satisfactory
- B = Satisfactory
- C = Average
- D = Insufficient
- E = Very insufficient

<i>During my postdoctoral appointment in Molecular Physiology and Biophysics my training in was:</i>	A Very satisfactory	B Satisfactory	C Average	D Insufficient	E Very insufficient
<b>Presentation skills</b>					
1) Technical writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Speaking about science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) English proficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Presentations for Interviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Presentations in Seminars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Use of technology for presentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Teaching</b>					
1) Awareness of careers in teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Practice teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Teaching knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Portfolio development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Mentoring opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Workshop development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Lecture/instruction design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Research science</b>					
1) Problem solving skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Ethics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Laboratory skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Experimental design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Writing</b>					
1) Grantsmanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Manuscript writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Career development</b>					
1) Academic job hunt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Entering life in industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Career in Teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Preparing your resume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Interview skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Negotiating in a faculty position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Faculty dynamics</b>					
1) Departmental dynamics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Faculty interaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Animal/Human protocol design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Establishing collaborations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Team teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Peer reviewing (grant, papers...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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B. Non-Academia

Dates		Business (B), Government (G), Non-Profit (NP) & Other (O)				Title			% Effort		
From	To	B	G	NP	O	Jr. Level	Mid Level	Sr. Level	Research	Admin.	Other
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. List all external research funding on which you were the PI to present (indicate also funding you received during your postdoctoral years). List Dates, Funding Agency (i.e., NIH, NSF, JDRP, etc.) and Award Type (i.e., postdoctoral fellowship, career development award, research grant, educational grant, etc).

Dates (to Present)	Agency	Award Type	Awarded during postdoctoral position at MPB?
			<input type="checkbox"/>
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Return questionnaire to: Maria Victoria Tejeda-Simon – Dept. Mol. Physiology & Biophysics, Baylor College of Medicine, Mail Stop BCM335, One Baylor Plaza, Rm BCM-TwB Building 1435, Houston, TX 77030 Tel: 713-796-7910 Fax: 713-796-3475, e-mail: mvt@bcm.tmc.edu

9. Publication record in peer reviewed journals to present (include also the publications from your postdoctoral years)

Journal	Publication Date	Published during postdoctoral position at MPB
		<input type="checkbox"/>
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12. How many meetings did you attend per year (as an average) during your postdoctoral position at MPB?

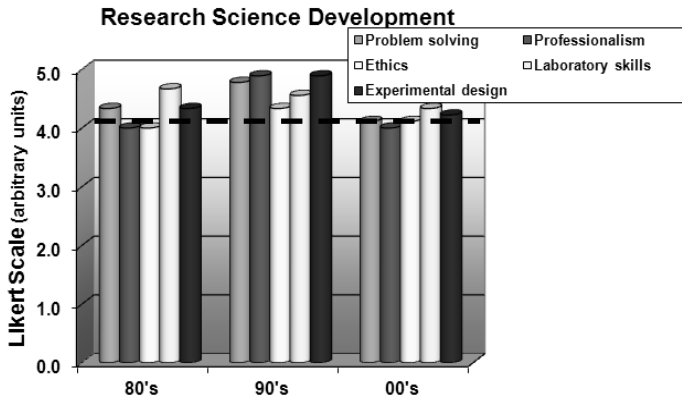
- 0  1  2  3  4 or more

13. What did you appreciate most about the training you received?

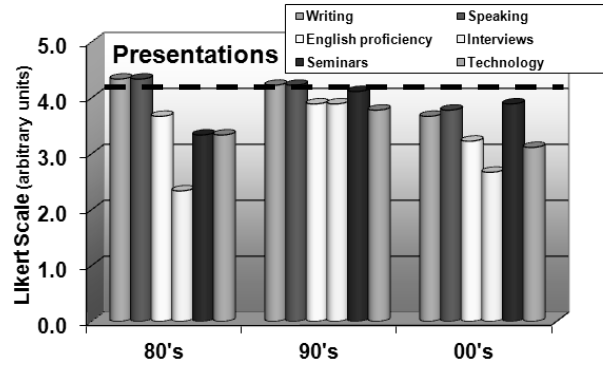
14. Reflecting on your career after your postdoctoral appointment at MBP, what skills and/or knowledge would have made you better prepared for your future profession?

15. Other comments:

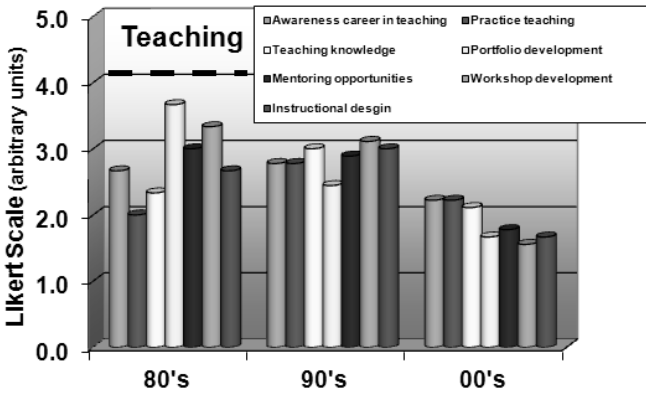
Return questionnaire to: Maria Victoria Tejeda-Simon – Dept. Mol. Physiology & Biophysics, Baylor College of Medicine, Mail Stop BCM335, One Baylor Plaza, Rm BCM-TwB Building 1435, Houston, TX 77030 Tel: 713-796-7910 Fax: 713-796-3475, e-mail: mvt@bcm.tmc.edu



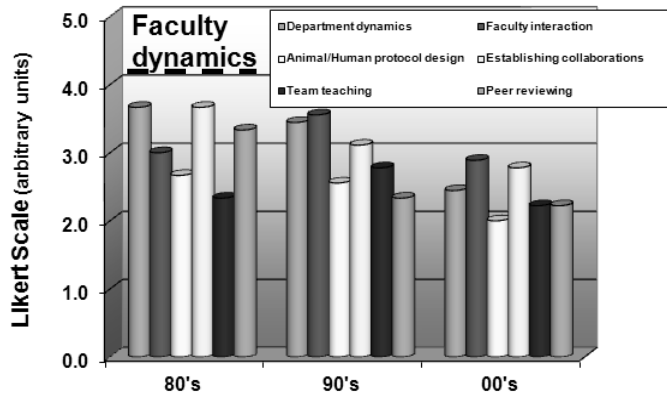
**Figure 1.-** Former postdoctoral trainees evaluation of their post-graduate preparation on



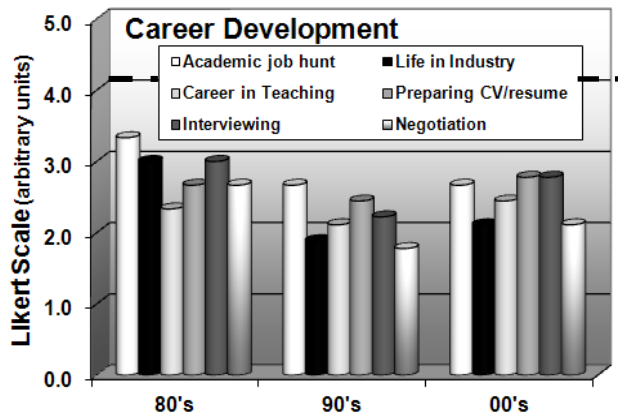
**Figure 2.-** Former postdoctoral trainees evaluation of their post-graduate preparation on



**Figure 3.-** Former postdoctoral trainees evaluation of their post-graduate preparation on



**Figure 4.-** Former postdoctoral trainees evaluation of their post-graduate preparation on



**Figure 5.-** Former postdoctoral trainees evaluation of their post-graduate preparation on

## The Implementation of Malaysian Higher Education Strategic Plan for International Marketing: A Focus Study on West Asian Students

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### ABSTRACT

Universiti Kebangsaan Malaysia (UKM) Strategic Plan 2006-2010 is a revised edition of the Malaysian's National Higher Education Strategic Plan 2020. The UKM Strategic Plan is legislated as a guide to equip UKM with the realities and challenges of education in the new millennium. In the revised UKM Strategic Plan (2006-2010 Perspective), environmental analysis on local and global issues that might influence significant impacts on higher education and UKM in specific, are given special focus. In line with the strategic planning concept, specific processes which include robust revisions, and in depth analysis have been done to ensure maximum achievement and effectiveness of such strategic plan. This paper discusses the impacts achieved in the fifth thrust of UKM International Marketing Strategic Plan 2006 - 2010. Employing both quantitative and qualitative methodological approach, this paper discovers and identifies two major educational issues which are: identifying the influencing factors in higher education's demand among West Asian students and focussing on the challenges faced by public universities and West Asian students in Malaysia. In the conclusion, we suggested various international marketing strategies to activate and boost Malaysia higher education programmes effectively and to position Malaysian educational programmes strategically at a global perspective.

**Keywords:** West Asian students, strategic planning , International Marketing

### INTRODUCTION

The higher education sector in Malaysia is rapidly developing, and this has become most obvious since a decade ago through a variety of reforms in terms of policy and initiative. From a mere 11 institutions of university and university college status in mid-1990s, the number has reached 62 (21 are public and the rest are private institutions of higher learning). This development is designed in line with the intellectual development, human capital and resource needs, not only for local requirements but driven by the concept of making Malaysia the regional hub of excellence for higher learning (Ujang, 2009).

Today, many international students are seen pursuing further education in Malaysia whether in private (IPTS) or public (IPTA) institutions of higher learning. They come from 161 different countries, thus with differing background and culture. Statistics show increase of international students from year to year. There are various factors which motivate them to further their studies in Malaysia, among them the good facilities, low cost of education as well as the opportunity of better employment in their home countries (Hushin and Mahmud, 2010).

The quality of facilities and services provided must take priority and be maintained in order to generally fulfill the needs and satisfaction of students. According to Johnson and Fornell (1991), emphasis on consumer satisfaction is very important to gain consumer confidence in the products and services provided (Che Azemi and Assain @ Hashim, 2011). Facilities and services within this context refer to infrastructural facilities provided and direct or indirect services, whether or not involving individuals. Both these factors point to the level of student satisfaction. An institution of higher learning should maintain the maximum level of satisfaction 397 for the purpose of maintaining

good and consistently quality performance. This is the key factor for an organisation to last longer even though studies conducted show that the quality of services rendered does not necessarily predict the level of satisfaction (Kouthouris and Alexandris, 2005). Changes in quality is a phenomenon which largely influences the management system of an organisation (Ramli et al., 2009). Theoretically, the level of student satisfaction with the facilities and services provided by the institution of learning may be fulfilled when the needs and wants are adequately met. Previous studies also support the finding that the level of satisfaction or dissatisfaction of a consumer is related to his assessment of the quality of services rendered (Parasuranam et al., 1988). Thus, in this era of globalisation, all aspects of individual consumerism should follow current times and requirements. In this age without borders, modern technology makes man wish for more satisfaction in life. The satisfaction in life yearned for in this context is in terms of the quality obtained. Consumer satisfaction is an important element in determining the quality of products and services provided by an organisation. The emphasis on consumer satisfaction is very important to gain consumer confidence in the products and services provided (Johnson and Fornell, 1991).

In 2007, the Malaysian Ministry of Higher Education published a blueprint which entitled the National Higher Education Action Plan 2007-2010 to spearhead the transformation of Malaysia higher education. The action plan is the working guide for the period of 2007-2010 which was the agenda of a more comprehensive plan known as The National Higher Educational Strategic Plan launched in August 2007 (Wan Muda, 2008). The Malaysian educational strategic plan is planned and formulated to raise the status of Malaysia higher education programmes at par with the first world countries educational system such as the Americans, British, Japanese and Canadians. The strategic plan have undergone extensive discussions and was formulated based

from numerous government educational policies and educational acts. There are seven thrusts in the strategic plan and they are:

1. Widening access and enhancing quality
2. Improving the quality of teaching and learning
3. Enhancing research and innovation
4. Strengthening institutions of higher education
5. Intensifying internationalization
6. Enculturation of lifelong learning
7. Reinforcing the Ministry's delivery system

The focus of this paper is on the fifth thrust of the strategic plan namely intensifying internationalization. Malaysia is now aggressively promoting to be an international hub for education (refer to Figure 1). However, a very important terminology that needs serious consideration is the concept of 'internationalization' itself which has evolved through time. Prof Christine Ennew from University of Nottingham advocates that 'the environment' should be exploited to encourage the growth of student mobility and research collaboration (Ling and Md Taib, 2011). In addition among other challenges in setting the market for internationalization, universities need to turn into business for the realisation of national goals.

The Malaysian International Marketing Strategic Plan 2006-2010 has formulated seven main approaches as the basic foundation for Malaysian higher education development until the year 2020. The strategic plan is the main document which translates the pathways for Malaysia higher education development into the future. In this plan, special consideration has been allocated specifically for human development and quality intellectual capability to project Malaysia as a progressive, sustainable, and competitive nation. The focus of this present research is targeted to

students from West Asian region. For the purpose of this research, West Asian region covers countries such as Afghanistan, Iran, Iraq, Bahrain, Oman, Qatar, Saudi Arabia, United Arab Emirates, Kuwait, Yaman, Jordan, Libya, Lubnan, Syria, Palestine, Turkey, Egypt dan Sudan.

According to the record from the Ministry of Higher Education, the number of West Asian students studying in Malaysian public higher education institutions has rosed from merely 548 students in 1999 to almost triple, which is, 2756 students in 2006. The average increase is 46 percent with Iranian students as the highest percentage with 200 percent intake per year. This phenomenon undoubtly, has identified Iran among the West Asian countries as the main marker for Malaysian international marketing in higher education institution. This preliminary research relating to West Asian students studying in Malaysia will initiate a conceptual framework that can be utilised for the international marketing strategic plan for Malaysian higher education institutions.

The conceptual framework is created based on data from the Ministry of Higher Education and selected Public Higher Education Institutions. The framework is used as a mechanism to increase the intake of West students to Malaysian institutions, to improve the teaching and learning pedagogy and to improve the quality of service to West Asian students as well as. to improve situations in solving problems faced by West Asian students in Malaysia.

#### **The Research:**

This preliminary study is specially focussed on West Asian students studying at Universiti Kebangsaan Malaysia (UKM). Four other universities were selected and used as comparison to UKM. These universities are namely: Universiti Malaya (UM), Universiti Sains Malaysia (USM) and Universiti Putra Malaysia (UPM). These three universities are public-state universities which have the status of research universities (RU). One non-research university is chosen that is, the Universiti Islam Antarabangsa Malaysia (UIAM) at Gombak, Selangor. UIAM is chosen particularly because of its international outlook and it has the highest number of international students' intake in its learning programmes.

#### **The Research Methodology:**

This research study employed two types of approach which are qualitative and quantitative method. The two different approaches are used in order to triangulate and complement each other in analyzing the data. The qualitative method encompasses literature study which use historical method of analysis and content analysis method. These two methods of analysis are used in examining primary and secondary data such as government reports, meeting minutes, workshop working papers, annual reports and monographs. In addition to the literature study, non-structure interviews are employed to elicit richer data and to clarify certain issues. In this research, quantitative method is used to elicit statistical and comprehensive data. A survey method is employed and survey questionnaires were distributed. Two hundred and sixty two respondents (262) answered the questionnaires. These respondents are selected from the five universities namely; UKM, UM, USM, UPM and UIA.

#### **Result and Discussion:**

From the survey conducted, it was found that the respondents from Universiti Islam Antarabangsa (UIA) and Universiti Sains Malaysia (USM) received the highest min score compared to respondents from UM, UPM and UKM. It can be interpreted that the respondents from UIA and USM relate positive perception of Malaysian education system based from their own experience in their university education system. Respondents from UIA score the highest min for the following statements:



Table 1: UIA Scores Min

no	Statements	Scores (mins)
1	Malaysia provides enough facilities (e.g.: transport, housing) for students' everyday life	3.08
2	Graduates from Malaysia are easily employable	2.82
3	Easy to pass the study course	2.88
4	Malaysia has good relation with respondents' country	3.52

USM respondents score min is as high as UIA. The USM respondents however, score at four different statements given in Table2:

Table 2: USM Scores min

No	Statements	Scores (min)
1	There is no problem in terms of the medium of instruction	2.81
2	Malaysia has good reputation as a Muslim country	3.34
3	There are many tourist attractions	3.52
4	. Malaysia's economy is stable and progressive	3.30

In general, the respondents from USM showed the highest min in the context of students' satisfaction to university infrastructure and learning environment. The statements tabulated below in Table 3 show the range of score:

Table 4: USM Scores Min

no	staitments	Score (min)
1	Satisfaction with student management quality and services at faculty/centre	3.04
2	Satisfaction with learning facilities such as seminar/lecture rooms	3.09
3	Feel safe in campus area	3.22
4	Satisfaction with basic infrastructure such as shopping areas and recreation areas nearby campus	3.26
5	Satisfaction in choosing the right university and will recommend to friends to study in this university	3.13

From these statistical findings, UKM stays at the lower end as compared to the other universities in terms of learning facilities and infrastructure quality provided at the university campus. UKM however, is still the choice of university among West Asian students based on the following issues:

Table 5: UKM Scores Min

no	statment	score
1	Student management quality and service at graduate management	3.00

	centre	
2	Internet accessibility within the campus	3.11
3	Satisfaction with the health facilities provided by university	2.87

Based on the analysis of data in this survey research, it can be concluded that to the West Asian students, UKM is the fifth choice of university after the other four Malaysian public universities; UM, UIA, UPM and USM. As being the last choice of university for tertiary education, UKM should make some serious and immediate improvements. UKM should advocate forthcoming strategies to realize the fifth thrust focused by the Ministry of Higher Education in National Higher Education Strategic Plan (2007-2010) which targeted on the globalization of education. Based on the analysis of results above, there are many factors which may influence West Asian students to make the choice of which higher education institutions in Malaysia to further their studies. The influencing factors are as follows: There are many issues and problems related with the learning facilities as seen by the West Asian students. Based on the following results in Diagram 2, some of the facilities at Malaysian universities need serious overhaul.

Some serious efforts should be taken by Malaysian Higher Education Ministry to attract more students from West Asian countries to study in Malaysia. This is necessary to re-position Malaysia as the hub of higher education in the south eastern region. The recommended promotional activities to raise Malaysia's image as the focal point for education are shown as follows:

#### The Promotional Strategies

- Operate public university branch campus abroad.
- Provide high quality university education.
- Establish cooperative relationship with other international countries.
- Enhance Malaysia Education Promotion Centre.
- Enhance promotion strategies used by MOHE.
- Establish alumni associations as a promotion agent.
- Conduct research on curriculum offered by universities.
- Improve university lecturers' teaching quality.
- Higher education institution practice scheme (SLAI).
- Publish reference book for international student.
- Quality control for support facilities at universities.
- Offer more scholarship for international student.
- Quota for international student enrolment.

**Conclusion:**

The research done by Institut Penyelidikan Tinggi Negara (IPPTN) on international students for the year 2009 found that there are gaps in academic delivering systems among Malaysian public and private institutions of education. Obviously, there are rooms for improvement to attract more West Asian students to further their studies in Malaysian higher education institutions. Public research university such as Universiti Kebangsaan Malaysia (UKM) should be fully prepared to compete with other higher education institutions. UKM educational system should extend far beyond other Malaysian higher education institutions by offering high quality courses, accommodate global requirements, and provide reasonable student fees. The perceptions solely based on emphasizing financial profits should be re-evaluated since it will affect the quality of education, facilities and services thus, will give unnecessary negative impacts to Malaysian higher education institutions. Such negative perceptions and avocations will deter Malaysia to be the international hub of education in the South East Asian region.

**REFERENCES**

- Kementerian Pengajian Tinggi, 2007. Pelan Strategik Pengajian Tinggi Negara (PSPTN)  
(<http://www.mohe.gov.my>)
- Kementerian Pengajian Tinggi, 2010. (<http://jpt.mohe.gov.my>).
- Ling, Ooi Poh and Fauziah Md Taib, 2011. Updates on Global Higher Education - Internationalisation: Taking Different Directions. Universiti Sains Malaysia: Institut Penyelidikan Pendidikan Tinggi Negara.
- Ministry of Higher Education Malaysia, 2007a. The Transformation of Higher Education Document. Putrajaya: Kementerian Pengajian Tinggi Malaysia.
- Ministry of Higher Education Malaysia, 2007b. Malaysia National Education Action Plan 2007-2010: Triggering Higher Education Transformation. Putrajaya: Kementerian Pengajian Tinggi Malaysia.
- Wan Muda, Wan Abdul Manan, 2008. The Malaysian National Higher Education action Plan: Refining Autonomy and Academic Freedom under the Apex Experiment. Paper presented at ASAIHL Conference, Universiti Sains Malaysia. December 12-14, 2008.  
([www.usm.my/.../WanManan%20Univ%20Autonomy%20ASAIHL%](http://www.usm.my/.../WanManan%20Univ%20Autonomy%20ASAIHL%20))

## Quality Assurance For Transition Areas From Vocational To Academic Education

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### ABSTRACT

The cooperation between the West Saxon University of Applied Sciences Zwickau and a non-academic educational provider is a relative new form of education, within which vocational competencies get extended in a way, so that their later accreditation is easily possible. For the cooperation model with the Academy for Business and Administration existing competencies get recognized on the basis of a joint quality management and are complemented by supplemental offerings with the result, that an augmented accreditation and therefore the assessment in a higher semester is possible. Within the frame of lectures, which are implemented by both educational institutions, different preliminary competencies get adjusted in the transition area. The quality assurance concept that covers contents, teachers and organization guarantees that rendered achievements can be recognized in any case. The accreditation procedure as a whole serves as beneficial activity to facilitate the transition from vocational to academic education and to abbreviate the duration of study. But also the further development of additional offers and tutoring systems are important components of the recognition and transfer management since they benefit the formative and developmental process of vocational qualified individuals regarding quality enhancement.

### Keywords:

### INTRODUCTION

Since 2008 the West Saxon University of Applied Sciences Zwickau (WHZ) offers in cooperation with the Academy for Business and Administration (VWA) Munich an extra-occupational Bachelor's degree for Business Administration with duration of eight semesters. Students who obtain the certificate in Business Management have therefore the possibility to gain an academic degree without the general university entrance qualification. The essence of this cooperation lies in a joint accreditation procedure, which enables the graduates of the VWA Munich to get recognized their vocational training and experiences for the studies at WHZ. Due to this procedure 50 % of the studies can be substituted. The accreditation procedure serves as beneficial activity to facilitate the transition from vocational, non-formal to academic education and to abbreviate the duration of study. These and further measurements for quality improvement are put to the test within the project "Recognition and transfer management for the integration of vocational training, non-formal, academic and further education within the process of lifelong learning", one the one hand to increase attractiveness of education at VWA and WHZ and on the other hand to open up new target groups. The is one of twenty research projects which are monitored and supported by a nationwide initiative on "Accreditation of Prior Learning From Vocational Education and Training and Work for Higher Education Programmes" (ANKOM), launched by the German Federal Ministry of Education and Research (further information available at ANKOM homepage).

### Methods and Processes

The aforementioned project deals with procedures and modes of accreditation and with designing transfer scenarios from vocational to academic education. The consideration of corresponding offers is essential to stick with the transition from information to knowledge society and to remain competitive in the sector of training opportunities. The cooperation with a non-academic educational provider allows the extension of vocational

competencies and their later recognition for the university training. On the basis of a joint quality management existing competencies get recognized and are further more complemented by supplemental offerings. Therefore an augmented accreditation and the assessment in a higher semester are possible. Within the frame of lectures, which are implemented by both educational institutions, different preliminary competencies get adjusted in the transition area. The quality assurance concept that covers contents, teachers and organization guarantees that rendered achievements can be recognized in any case. In this instance an all-in accreditation procedure is used. Whether the contents of modules of both educational institutions are of the same value is determined by an equivalence test (ANKOM 2010). For a successful accreditation process transparency and reliability are two important factors. Additionally to the recognition of qualifications gained through vocational education, students have the possibility to get recognized informal learning outcomes, which they obtained during their working life experiences. Since they study extra-occupational it is only reasonable to consider the workplace also as learning environment. Therefore, in a specially designed module "Working on Projects", students develop papers corresponding to real projects and tasks of their workplace. By reflecting academic theory on vocational tasks and contrariwise, an optimal interlocking between theory and practice is ensured.

In order to facilitate the transition to university further measurements are necessary. Therefore, it must be distinguished between complex and special action fields. The question of recognizing vocational acquired skills and the successful transition to academic education can only be solved in a complex approach. Thus, integrated solutions for the holistic process from the cognition of educational requirements to the final degree are needed. By establishing framework conditions within the complex approach, foundations are laid for the special action fields, in which integrated training opportunities for vocational qualified individuals can be implemented. The accomplished measurements include the areas organization and structure, program and content, services and resources. The specific promoted measurements in all areas benefit the accreditation of prior learning and the facilitation of the transition to higher education and create therefore an immediate advantage for every participant with vocational and non-formal qualifications.

To meets the students' requirements and to ensure quality standards the program is permanently evaluated. Corresponding to the results specific measurements are immediately implemented. Of special interest at it is the permanent optimization of the transition and accreditation process. Definite evaluation results and the derived actions will be discussed in detail in the following paragraph. Another process serving the permanent quality assurance is the further development of the university course. In response to changing demands in theory and practice enduring adaptations are made. Teaching and learning contents are pointedly reorganized and adjusted in order to exhaust a maximum of accreditations potentials. Resulting scopes are used to optimize transition and to provide supplemental offerings.

With the aim of adapting the already successfully realized university course to further applications, all experiences and best practise solutions are gleaned and documented. They will serve to develop a guideline for other departments of WHZ and other universities to transfer the model to other courses and co-operation partners.

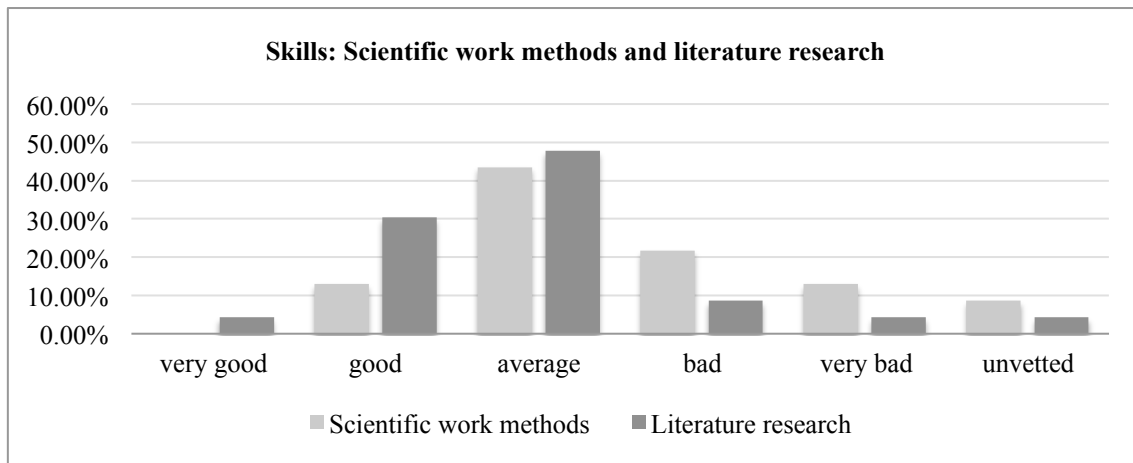
### **Outcomes**

The extra-occupational distance course Business Administration was substantial and structural reorganized in order to abbreviate the duration of study, adjust learning contents and therefore to optimize the transfer and recognition management. Furthermore, the redevelopment happened for the purpose of a demand-orientated adaptation, the enhancement of attractiveness of the university course and the opening up of new target groups. The model has shortened from ten to eight semesters, from which the first four semesters can be fully accredited for graduates of VWA Munich. The curriculum and contents of modules were reviewed and revised regarding topicality, workload and legal conformity. In this context also regulations for university admission, accreditation and assessment have been reviewed, preconditions made by the German Ministry of Culture and Education have been adapted (KMK 2002 and 2008). A further innovation is that students prospectively have to choose only one profile, in which they intensify their studies, instead of two. Possible profiles are: accounting and controlling, business management, human resource management, informatics or logistics. The aim is a stronger profiling corresponding to the student's personal interests and their individual tasks in their workplace. For a fluent transition from vocational to academic education students' have to absolve preparatory courses. With this supportive measurement students shall be optimal prepared for academic requirements and challenges they have to face when starting their specialisation in the chosen profile.

Parallel they are working they absolve the module “Working on Projects” to get recognised their vocational experiences by developing papers on academic issues corresponding to the tasks in their workplace. They have to detect and analyse problem areas and find appropriate solutions.

As already mentioned above, the university course is regularly evaluated to ensure quality assurance and an adequate development. Besides general questions about program, content, organisation and services, within the last evaluation students were questioned about their own estimation of their previous knowledge and skills. The analysis has shown that the participants partly have essential deficiencies in the fields of scientific work methods and literature research:

Figure 1: Extract of student poll



Source: own figure

Another essential result of the evaluation was that a larger part of participants demands a more extensive offer concerning consulting and guidance in the areas of content and organisation. Corresponding to these and further results of the evaluation specific measurement were undertaken to ensure the efficient transition to higher education and a successful graduation:

#### *Tutoring system*

To remedy the deficiencies concerning scientific work methods and literature research a tutoring system was established. By participating in a workshop, students learn fundamental techniques about scientific research and writing. The active attendance enables them to implement and apply the new knowledge, at first to drafting papers for several modules and finally to writing their Bachelor thesis. The tutorial is meanwhile a permanent feature of the university course and very well accepted by the students.

#### *Supplemental offerings*

In cooperation with the “Job Factory” Career Service of WHZ supplemental offerings for distance learners were established and implemented. Students have the possibility to gain additional qualifications by participating in e-learning modules or workshops or to take advantage of services concerning career consulting. The joint setup of these supplemental offerings is again a beneficial measurement for the designing of the transfer management, on the one hand concerning the transition from vocational to higher education and on the other hand from university to the professional career. The target-group-specific offers include the promotion of intercultural competencies as well as soft skills and leadership skills.

#### *Establishment of a service centre*

The establishment of a service centre serves the individual support of the students regarding organisation and

university program. The realisation of the service centre including help desk occurs in cooperation with the VWA Munich. It serves as beneficial measurement for the facilitation of the transition to academic education and the study progress. Students or anyone interested receive comprehensive consulting on questions regarding the study, conditions of studying, examination requirements and accreditation regulations. To warrant an unproblematic accessibility especially for the students at VWA Munich a staff member of WHZ visits Munich for on-site consulting on a settled day in quarterly periods.

All these measurements encompass the complex and special action field and are important keystones for a successful transfer and recognition process.

### **Conclusion**

All presented processes and measurement serve the integration of vocational and academic education, especially in the areas propaedeutic and transition from vocational training to university and finally also to the professional career. They have substantial influence on the successful study progress as well as graduation and aim at supporting the students in their vocational and personal development. Thus, the pursuance of a holistic approach is of fundamental significance and only by steady optimizing the recognition and transfer management the educational process of vocational qualified individuals can be supported at best. For the attainment of target objectives transition areas from vocational to academic education are designed corresponding to the demands of vocational qualified students and higher education is adapted to different forms of qualifications of prior educational processes. The most important elements in this procedure is the recognition of prior learning outcomes and vocational experiences but also the establishment of supplemental offerings like preparatory courses and tutoring systems.

### **REFERENCES**

ANKOM Anrechnungsleitlinie. Leitlinie für die Qualitätssicherung von Verfahren zur Anrechnung beruflicher und außerhochschulisch erworbener Kompetenzen auf Hochschulstudiengänge. Hrsg.: Wissenschaftliche Begleitung der BMBF-Initiative „ANKOM“, HIS Hochschul-Informationssystem GmbH, Hannover; Institut für Innovation und Technik (iit) der VDI/VDE Innovation + Technik GmbH, Berlin; 2010. Available at: [http://ankom.his.de/know\\_how/anrechnung/pdf\\_archiv/ANKOM\\_Leitlinie\\_1\\_2010.pdf](http://ankom.his.de/know_how/anrechnung/pdf_archiv/ANKOM_Leitlinie_1_2010.pdf)

Kultusministerkonferenz (KMK): Anrechnung von außerhalb des Hochschulwesens erworbenen Kenntnissen und Fähigkeiten auf ein Hochschulstudium. Beschluss der KMK vom 28.06.2002. Available at: [http://www.kmk.org/fileadmin/veroeffentlichungen\\_beschluesse/2002/2002\\_06\\_28-Anrechnung-Faehigkeiten-Studium-1.pdf](http://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2002/2002_06_28-Anrechnung-Faehigkeiten-Studium-1.pdf)

Kultusministerkonferenz (KMK): Anrechnung von außerhalb des Hochschulwesens erworbenen Kenntnissen und Fähigkeiten auf ein Hochschulstudium (II). Beschluss der KMK vom 18.09.2008. Available at: [http://www.kmk.org/fileadmin/veroeffentlichungen\\_beschluesse/2008/2008\\_09\\_18-Anrechnung-Faehigkeiten-Studium-2.pdf](http://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2008/2008_09_18-Anrechnung-Faehigkeiten-Studium-2.pdf)

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