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Higher Education Learning Profile and Social Development in the Asia-Pacific

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Introduction

An education specialist commented, “expanding access [in higher education] has a thousand parents, but quality is an orphan—politically speaking at least” (Collins & Rhoads, 2008, p. 177). This quote referred to the political comfort in promoting access to higher education, but the resistance toward considering educational quality. Based on what appears to be a global accountability movement in education, the parent/orphan analogy is no longer applicable. Tuning education standards, assessment, accreditation, the Bologna Declaration, and “No Child Left Behind” policies all have global applicability. Even a new World Bank (2011) Education Strategy defines strengthening an education system as reforming “relationships of accountability” and ensuring that results of learning are “measured and monitored” and ultimately linked to “financing and results” (p. 18).

The movement toward assessment and quality has emerged from the knowledge that economic growth is supported by education and training. In order to refine strategies and investments in education, assessment and quality assurance is needed. For the Asia-Pacific Economic Cooperation (APEC), an extensive collection of papers combined to form the report, *Quality in Higher Education: Identifying, Developing and Sustaining Best Practices in the APEC Region.* The objective of this publication (and conference) was to “generate discourse that would identify and help define the attributes of quality in higher education across the region and help create models based on evidence of successful practices that recognize economic, social, and cultural differences” (APEC, 2011, p. 7). Figure 1 represents a word cloud of the entire report. The sizes of the words correspond with frequency, indicating the focus of the project.

Figure 1. Word Cloud of *Quality in Higher Education* (APEC 2011)

The purpose of this paper is to expand knowledge beyond quality and assessment practices in the Asia-Pacific region to develop a profile about the nature of learning domains and degree qualifications. Higher education has proven to be useful to society by providing an educated workforce, increased tax revenues, greater civic engagement, and a healthier population (Bloom et al., 2006). Given APEC’s focus on education as a catalyst for economic development and better life standards, this paper evaluates the learning outcomes used throughout the region for a focus on workforce development and capacity building. In

addition to synthesizing existing sources of disparate information about the region, analysis of a new questionnaire to APEC representatives addresses the following questions:

1. What is the regional landscape across APEC economies for higher education learning domains or outcomes?

2. How can improved knowledge of learning outcomes affect student mobility and regional cooperation?

3. In what ways are the learning outcomes throughout the region aligned with the goals and values of APEC (e.g., focused on social and economic development)?

In Europe, the Bologna Process targeted quality and transparency as a means toward increasing student mobility (a benefit to countries that send and host students). Given the geographically adjacent nature of European nations, the process was unique to the region. In the United States, the Lumina Foundation has developed a profile of what qualifies as a degree. The Lumina Degree Profile is a non-binding tool that will be evaluated and refined by stakeholders. The development of a set of learning outcomes and a degree profile for the Asia-Pacific builds upon work in the region conducted over the last decade to define the content and quality of a degree in the Asia-Pacific.

This paper concludes by applying the learning domains and the landscape of the region to the idea of using higher education as a strategy for social and economic development. Moving beyond credit transfers and course equivalencies, program quality and assessment should be connected to social development to advance the public and social benefits of higher education. This knowledge foundation can provide early building blocks for understanding the meaning and value of a postsecondary degree and how this can impact regional development. Greater understanding about similarities, differences, and the focus on applying higher education to social development can enhance cooperation and effectiveness among APEC members. Finally, additional knowledge about the outcomes needed for graduates to be competitive in a global work force can enhance economy and region-wide educational planning.

Assessment and Accountability

A variety of internal and external pressures play a role in the call for evidence to "prove" what students are learning as a result of their enrollment in higher education. For example, the public may demand greater accountability for expenditure of tax dollars. Legislatures and government agencies are increasingly observing institutional practices and having greater influence over institutional decision-making. As a result, accountability has become both a prevalent concept and a programmatic initiative (Ewell, 2002, 1997). However, if calls from law makers and others for strict quality monitoring lead to simplistic approaches to gathering evidence about learning and obfuscate institutional values and expression of faculty expertise, educational principals can be diluted (Bresciani, 2006). Depending on the location and degree of pressure, institutions range from an engaged and internalized process of review or a more compliance approach to order to satisfy the external demand (Ewell, 2002).

In the midst of growing demands for accountability of higher education (as a sector or as individual institutions) with regard to student learning and related expenditures, there must always be a definition of quality assurance or achievement levels. Conceptualizations that lack clarity leave room for arbitrary applications of an evolving and unclear threshold of quality and the nature of the content. Degree completion, enrollment levels, and retention rates are often seen as reliable indicators of quality (Ewell, 1997). Although these indicators

may be simple to measure, they are not an exact measure of educational quality. Standardized testing is also used to evaluate student learning across institutional types and regions and is a traditional medium to measure the quality of higher education. In many developed countries, educational testing is ubiquitous. According to Koretz (2008), achievement testing is a complex enterprise that is widely misunderstood and misused, and "precisely because of the importance given to test scores in our society, those mistakes can have serious consequences" (p. 1). Aside from the complexity of reliability, measurement error, and cultural bias, research shows that when someone is held accountable for test scores, they may become egregiously inflated (Koretz, 2008). Although standardized testing may be a simple method to collect data, many tests are not connected to the curricula being taught and do not measure the course or program being delivered. Additionally, standardized tests are often criticized for an inability to accommodate different learning styles (Maki, 2004).

Accreditation began with a focus on admission procedures and then educational standards in the mid- to late 1800s (Goodchild & Weschler, 1989). Institutional practices have become entrenched, and change in the methods of delivery for higher education is slow to respond to societal needs. When government officials ask that institutions verify the quality of their education, the response ranges from high levels of engagement to neutral or even subversive. In the absence of a common standardized test there is a resounding call for institutions to identify specific learning outcomes and achievement levels and consequently demonstrate what students are able to do as a result of the investment. It is clear that the scrutiny of higher education is not diminishing, but growing. The articulation of learning domains or outcomes is often the first step in developing a system to assess degree quality and to set standards of achievement.

International Mobility

There are several trends in regions and organizations that identify assessment and quality assurance as being driven by international mobility. From the inclusion of education in the General Agreement on Trade and Services (GATS) to regional agreements, it is clear that the ability of students to transfer credits and study in international locations requires a comparable curriculum or set of achievement levels. This trend has been manifested in several different ways.

The Bologna Declaration in 1999 was part of a process that aimed at creating a European Higher Education Area by making academic degree standards and quality assurance standards more comparable and compatible throughout Europe. UNESCO has played a role in trying to advocate for greater mobility across borders. A diplomatic conference in Lisbon created a space to introduce ratifications of the Bologna process. The Lisbon Recognition Convention is an example of a new generation of recognition conventions (Uvalic-Trumbic, 2009). The convention also highlights the significance of assessment and its relevance in recognizing qualifications that ensure mobility across higher education institutions.

The Organization for Economic Cooperation and Development (OECD) was originally designed to promote economic growth, and its membership is comprised of the world's major industrial democracies. Education has been part of the OECD portfolio since its inception, but in 2002, a Directorate for Education was constituted. The diverse programs that comprise this directorate carry out several activities, including: data collection, data production through surveys like the Program for International Student Assessment (PISA) and the Assessment of Higher Education Learning Outcomes (AHELO), country reviews that follow a quality assurance methodology, non-binding guidelines for quality provision in cross-border education, as well as other activities.

In 2004, the OECD produced a document, *Quality and Recognition in Higher Education: The Cross-Border Challenge.* The goal of the document was to undertake a mapping of quality assurance in different parts of the OECD and cross-border higher education. The main conclusion was that most countries/regions did not have comprehensive quality assurance mechanisms and left cross-border provision out of their system. OECD and UNESCO collaborated to produce quality assurance guidelines. The guidelines are designed to help students get easy access to reliable information on higher education offered outside their home country or by foreign providers in their country. In order to provide greater clarity on procedures for international recognition, the guidelines represent a call to make qualifications more transparent. One major recommendation includes an "invitation to governments to establish comprehensive systems of quality assurance and accreditation for cross-border higher education, recognizing that this involves both sending and receiving countries" (Schuller & Vincent-Lancrin, 2009, p. 76). The OECD has continued collaboration with the World Bank in order to increase the capacity for quality assurance, trade agreements, and also to stress how cross-border higher education can contribute to capacity development under appropriate regulatory conditions in developing countries.

Another joint publication in 2007, *Cross-Border Tertiary Education: A Way Towards Capacity Development*, considers the opportunities and challenges related to international mobility, especially for developing countries willing to leverage cross-border higher education as a tool for development. This document discusses the concept of capacity-building through cross-border education, with particular emphasis on the critical role of quality assurance in trade negotiations. In addition, the document links cross-border education with economic development, and consequently highlights quality assurance as playing a key role in the success of cross-border education. The combined effect is the elevation of quality assurance and assessment in education as a component of economic development.

International Comparative Assessment

Economies "can no longer rely on natural resources for economic success. Today the most powerful competitive advantage is brainpower: a workforce that invents and innovates" (Thurow, 1996, p. i). Shils (1958) even described higher education as a source of "secular salvation" to capture the spirit of a growing value in education as both an individual and collective good. Although higher education provides expertise to all sectors of society and the economy, a UN report focused on the relationship to science and technology:

> Universities have immense potential to promote technological development. But most universities in developing countries are ill equipped to meet the challenge. Outdated curricula, under motivated faculty, poor management, and a continuous struggle for funds have undermined the capacity of universities to play their roles as engines of community or regional development. (UNMPTF, 2005, p. 90)

Universities are considered a vital part of national development, as institutions can assist in the growth of business and industrial firms and contribute to economic revival and high-tech development in their surrounding regions. However, measuring an institution's ability to contribute to society and educate students remains a difficult topic. According to Kamens and McNeely (2010), "It seems that fewer and fewer countries imagine that they will achieve the status of a 'good society' without high levels of formal education and accompanying efforts at national assessment and/or international testing" (p. 19).

International benchmarking has been identified as the basis for improvement and a key way for economies to "understand relative strengths and weaknesses of their education systems and identify best practices and ways forward" (OECD, 2006, p. 18). It is a signal of international consensus (primarily by developed countries) about the necessity of assessment.

Comparative interest in national examination systems dates back to the late nineteenth century (Meyer, Kamens, & Benavot, 1992; McNeely & Cha, 1994), while formal international testing is mostly a post-WWII project based on the availability of sophisticated testing. Although higher education does not have large international comparative tests like Trends in International Mathematics and Science Study (TIMSS) or the Program for International Student Assessment (PISA), there is a large industry that produces the SAT, ACT, GRE, and other standardized tests that is ready to enter the arena of international achievement testing if given the opportunity.

During the past 40 years, the number of countries participating in international testing for learning in mathematics, science, and reading has increased dramatically. According to Benavot and Tanner (2007), the number of countries conducting learning assessments doubled between 1995 and 2005. Consequently, an expanding number of donor agencies and multilateral organizations are mandating some form of learning assessment to accompany their loans (e.g., IMF and the World Bank), which appears to mirror some national accountability movements like "No Child Left Behind" in the United States. In a comparison of the educational aims of 161 countries between 1955-65 and 1980-2000, Fiala (2006) noted a focus on citizenship, national identity, equality and democracy, and less focus on employability.

Higher Learning in the Asia-Pacific

The primary source of background information for this paper is the collection of papers published in, *Quality in Higher Education: Identifying, Developing, and Sustaining Best Practices in the APEC Region* (APEC 2011). Written papers and case studies were presented at a three-day conference in Honolulu, August 4-6, 2011, and subsequently published on the APEC website. The papers build a platform to enhance the understanding of learning outcomes and degree expectations. Economic growth and development in the Asia-Pacific region depends on the quality of education and training available. Defining and identifying quality is notoriously difficult and constitutes a perennial challenge in higher education; seeking to assure it within higher education institutions is another. This collection of papers pursues the questions: What constitutes quality in higher education? How do we know quality when we see it? Even as governments, universities, and colleges across the APEC region grapple with the concept of quality, they have responded to the press for quality assurance by designing assessment systems and working with higher education institutions to improve quality across institutions, within programs, across research endeavors, and certainly around teaching and learning.

Across the APEC region, approaches to quality have involved both regulatory and voluntary models. The need to create and assure higher education quality has been linked to issues of creating sufficient higher education capacity, assuring important social values such as equity through access, and to the need for graduates to possess qualities and skills that can be meaningfully used in societies experiencing rapid and profound change. As higher education institutions in all countries struggle to adapt to such changes, the issue of how to develop quality in all aspects of higher education and how to sustain it has become a constant feature of the higher education landscape. Despite the challenges and difficulties involved, successes abound throughout the region. In examining instances of success, one is able to discover common elements that are attributes of exemplary practice.

The focus of this project directly responded to the priority expressed in the 2008 Joint Statement of Education Ministers at the 4th APEC Educational Ministerial Meeting in Lima, Peru that, "quality education for all is our common goal." The ministers stated that ensuring that all students receive quality education will help bridge economic chasms within

economies and throughout the Asia-Pacific region while it improves the quality of life of citizens and promotes prosperity.

The papers combine to form a commentary on quality assurance, pressures, causes, manifestations, and ultimately approaches taken by several economies (Australia; Brunei Darussalam, Canada; Chile; China; Hong Kong, China; Japan, Korea, Malaysia, Mexico, New Zealand, Peru, the Philippines; Russia, Chinese Taipei, Singapore, Thailand, the US, and Viet Nam,). In-depth descriptions of economy-specific approaches and exemplars are provided to ensure that quality is maintained amidst increased enrollment and diversity with fewer resources, a growing private sector, and the cumulative result in a mandate for accountability. Quality assurance ultimately serves the function of negotiation with the public around the question of value. For individual and societal funding, value is a key question. The papers examine the quest for quality, the complexity of rankings, and the meaning of the term "world class."

In this collection of papers, Hawkins (2011) notes the rise of quality assurance in Asia "with a number of forces and factors including the philosophies of neo-liberalism, managerialism, and corporatization, among others, all of which has contributed to the establishment of national QA or accreditation agencies, societies, associations, networks, and other schemes to measure HE quality" (p. 2). Consequently the focus on quality is ubiquitous. Massification of enrollments plus diversity of students and postsecondary institutions in the Asia-Pacific (and around the world) has resulted in an increased demand for more information about the content and outcomes of learning, and an interrogation of the methods to measure quality.

The combination of diversity, availability, international focus, fluctuations in funding, the private sector expansion, and changes in governance has a cumulative result in increased competition across the sector (Hawkins, 2011). Trow (1996) argues that the fundamental role of quality relates to the public's trust in the institution's capabilities. When trust is lacking, external accountability enters and formal quality assurance procedures begin to dominate. A key question is whether or not greater public understanding of higher education learning domains and outcomes will lead to greater trust.

Competition and rankings are conspicuously intertwined with the focus on quality. Neubauer (2011) argues that from a social constructionist point of view (Berger & Luckman, 1967; Potter, 1996), global rankings invent a system that intellectually muddles the "fundamental role of universities—teaching and service to the community which are not well taken into account" (p. 2). When rankings are highly valued or trusted, the criteria on which the rankings are based becomes the implicit values system. Rankings create the kinds of goals in which higher education institutions pursue, which often leave out teaching, community service, and learning outcomes in general. In other cases where the higher education institutions are subjected to external pressures to achieve greater accountability for their performances, the governments and accreditation agencies drive the process. For example, according to Lee (2011), New Zealand funds for higher education institutions are dependent on the institution's performance and its contribution to national priorities.

There are several other key APEC documents that address the quality assurance issue. *Mapping Qualifications Frameworks Across APEC Economies* (June 2009a) aimed to facilitate increased transparency and reliability of information about qualification frameworks across the APEC region, share knowledge and skills, and identify future areas of collaboration. The report concludes that National Qualifications Frameworks (NQFs) in operation in the member economies of APEC are diverse in their structure, coverage, operational purposes and governance. According to the report, out of the 21 member economies, seven have operational NQFs, six are in the development process, and eight do not have a framework and no clear plans for development. In general, NQFs aim to provide

greater transparency for qualifications, support for skills standards systems, a means of managing quality assurance, and facilitate the international recognition of qualifications. Some economies use the NQFs as a basis for credit systems for transfer across education and training levels and institutions. Finally, the report notes various advantages that such links can bring include the greater potential for international recognition of national qualifications, the facilitation of the mobility of labor and students, the liberalization of trade in education and training, and the greater transparency of national qualifications systems.

The 5th APEC Education Ministerial Meeting in Gyeongju, Korea (2012) focused more on the knowledge-economy and global cooperation. The Ministers reviewed recommendations proposed by EDNET in higher education quality and agreed on the importance of further refinement of educational responses, including to:

> Improve the quality of higher education by strengthening the teaching force, assuring quality through high quality indicators and best practices facilitating the mobility of students and education providers between and among APEC member economies. (APEC 2012, p. 2).

This recent statement also included an acknowledgement that "the extent to which the member economies cooperate is vital for strengthening the capacity and future viability of education efforts within the APEC region" (APEC, 2012, p. 3).

Another key background component is the *Chiba Principles* developed with the Asia-Pacific Quality Network (APQN). The interest in developing such principles was informed by several global projects: the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) *Good Practice Guidelines*; the UNESCO/OECD *Guidelines for Quality Provision in Cross Border Higher Education*; and the European Association for Quality Assurance in Higher Education (ENQA), *Standards and Guidelines for Quality Assurance in the European Higher Education Area*, which were developed as part of the Bologna Process.

The Asia-Pacific region is characterized by a diversity of economic, social and political systems, cultural traditions and values, languages and aspirations. This diversity is reflected in the structure and organization of higher education across the region and national approaches to quality assurance. Such diversity provided a basis for some economies in the region to establish agreed frameworks that harmonize local approaches. The need to address these conditions motivated the hosting of a workshop under the Brisbane Communiqué in Chiba, Japan on 18 February 2008 in conjunction with the Asia-Pacific Quality Network Annual Conference. The *Chiba Principles* provide the region with a set of quality assurance principles that guide processes to support institutional quality assurance and quality assurance agencies. A basic premise of the Chiba Principles is that each economy has a quality assurance framework for higher education in place and these principles underpin the quality assurance elements of that framework. The framework's three sections include:

- Institutional Quality Assurance: key principles guiding institutions in assuring their own quality.
- Quality Assurance Agencies: key principles guiding the structure of quality assurance agencies and their management if they are to effectively conduct assessments for the accreditation and auditing of institutions and programs.
- Quality Assurance: a set of principles which outline the process and content of quality assurance common to the activities of both the institution's internal practices and assessment by external quality assurance agencies.

Building Knowledge for APEC

In APEC, more attention could be focused on describing the content and curriculum in the learning environment? There is much to say about testing and assessing for quality and

value, but core content across diverse cultures is another issue. The actual outcomes for the learning environment provide another dimension to the dialogue. Extensive systems, processes, and models may demonstrate a sophisticated approach to evaluating outcomes that are unstated or stated in general terms, without outcomes specified. Two important sources of additional background material provide a platform to guide the development of new sources of knowledge to fill the gap: APEC's (2009b) *21st Century Competencies* and an *Analysis of Maths and Science* (APEC 2009c). Past projects focused on primary and secondary education, but did no address postsecondary or higher education skills, knowledge, and competencies. The core elements addressed below are key for this project.

The report, *Education to Achieve 21st Century Competencies and Skills for All: Respecting the Past to Meet the Future* (APEC 2009b), highlights outcomes that are important for remaining competitive in the global economy. The core subjects and themes are:

- Identifying the core content knowledge and skills in math, science, and languages all students must master;
- Identifying the career and technical knowledge and skills needed in the 21st Century workplace; and
- Identifying the tools (ICT) and policy supports (new ways of teaching; assessment and accountability) necessary to ensure 21st Century Skills for All.

In preparation for the 4th APEC Education Ministerial Meeting (AEMM), Peru surveyed Member Economies and found that the Economies responding to a survey on 21st Century competencies recognized a need "to go beyond the teaching/learning approach which is solely based on knowledge acquisition." When probed further, many APEC Member Economies identified four overarching competencies:

1. Lifelong learning: a general acknowledgement of the changing nature of our times and as a consequence, the need for continuous skill development through a lifetime.
2. Problem solving: to prepare students to react to diverse and concrete situations with implications for skills such as creativity, initiative, critical thinking, and decision making.
3. Self-management: the development of students as independent and self-directive with development of critical, reflective, and independent thinking.
4. Teamwork: concurrent with autonomous thinking and learning is the need to develop capacities for team work that require communication, confidence, information sharing, tolerance, and democratic attitudes.

These general competencies were developed from survey data and applied to all sectors of education. In addition, the developers acknowledged the need for protecting diversity as one of the main resources in a global world.

The report, *Analysis of Maths and Science in APEC* (AEPC 2009c), focused on similarities and differences among the member economies' expectations and priorities in three main areas: a) qualitative aspects of standards, b) common content expectations, and c) performance expectations. The survey was particularly helpful in terms of designing a less complex yet comprehensive overview of K-12 learning outcomes across APEC economies. Given the focus on primary and secondary math and science education, this project was helpful in design, but lacked pertinent information for postsecondary purposes. The report provides extensive insight in education up to grade 12, but no information on higher education. The methodology and approach, however, serve as a good model for this study. Given the role of higher education in promoting economic and social development, additional information about the postsecondary education sector can build on this knowledge base.

Methodology

In addition to synthesizing existing sources of disparate information about the region, new research was conducted to answer the following questions:

1. What is the regional landscape across APEC economies for higher education learning domains or outcomes?
2. How can improved knowledge of learning outcomes affect student mobility and regional cooperation?
3. In what ways are the learning outcomes throughout the region aligned with the goals and values of APEC (e.g., focused on social and economic development)?

A questionnaire (Appendix A) was distributed to individuals in each APEC economy to inquire about the general expectations for higher education graduates. For some economies expectations are communicated through National Qualifications Frameworks, mission statements, and/or goals. Ten of the 21 economies responded to the survey with details about the role of higher education and its relationship to social development and affirmations of quality. Most of the respondents pointed toward national laws and other publicly available information that describes the nature and nuance of the purpose of their higher education system. To answer the guiding questions of the study, content analysis was used to evaluate primary sources of information regarding national and institutional goals and objectives for higher education. The primary sources included the responses to the questionnaires as well as the documents and sources the respondents included. Statements regarding these goals and objectives were coded and evaluated for areas of symmetry. Following the analysis, learning outcome language was formulated to capture existing commonalities in the region. Finally, the Lumina Foundation (2011) Degree Profile provided a model to formulate a typology by which other frameworks can be analyzed and compared.

Findings

Generated from questionnaire responses and publicly available documents describing the nature and role of higher education in APEC economies, the findings are divided into four themes. (1) The first theme evaluates the implicit or explicit nature of the role of higher education in the economies as well as the degree of diversity or uniformity within the system. (2) The second theme evaluates the actual content of learning domains or outcomes as communicated by representatives through the questionnaire or in public documents. The findings in this theme communicate the panoply of learning domains across APEC in knowledge, skill, and value areas. (3) A third theme uses the Lumina Foundation (2011) Degree Profile as model for generating learning domains that can be used in diverse systems. A template for APEC to further examine learning outcomes is proposed in this section. (4) The last theme addresses the role and value of higher education in each economy, as it relates to social and economic benefits. The findings in this theme connect to the primary objectives of APEC and the larger public benefits that can occur through higher education. Although ten of the 21 economies responded to the questionnaire, enough data was collected from publicly available documents to formulate findings based on a sample of 16 APEC economies.

Higher Learning Systems

Figure 2 offers a typology of higher education systems (ranging from autonomous and diverse to more uniform) and a depiction of the range of clarity available about intended learning outcomes or domains (ranging from implicit to explicit). For an example of the implicit/explicit continuum, economies that developed an NQF were more explicit about expectations of graduates. As demonstrated in Figure 2, there is a wide variety of approaches within APEC economies. The typology offers a rudimentary tool to presenting generalities based on the data available.

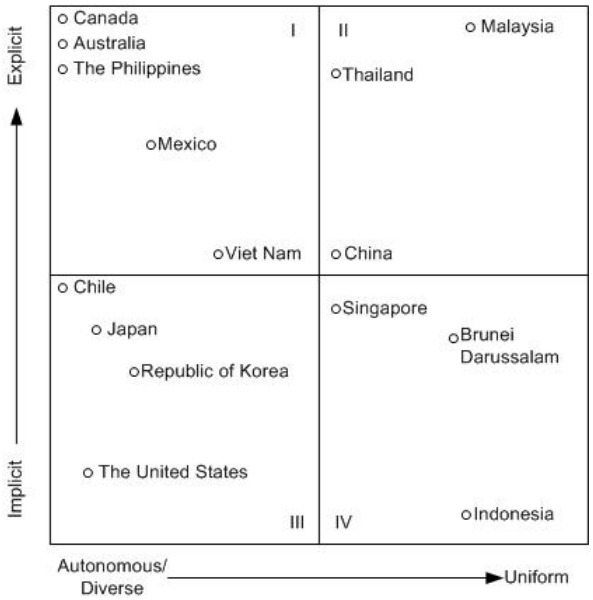

Figure 2. Typology of higher education systems and learning domain clarity

Quadrant I includes the systems that were autonomous/diverse, but also had explicit learning domains. The three most explicit economies all have degree qualifications frameworks (Canadian Degree Qualifications Framework (CDQF), Australian Qualification Framework (AQF), and the Philippines National Qualifications Framework (PHLNQF)). Mexico and Viet Nam currently have frameworks in development and other mechanisms for communicating expectations. There are a variety of levels of autonomy even within this quadrant, but Canada is an interesting case due to its highly diversified and autonomous multi-system approach to higher education. With multiple national languages and 13 different systems, it is likely the most diversified system out of the 16 economy sample. The ability to develop a set of expectations in the CDQF presents a good model for the ability to be explicit even within a diverse and autonomous system. In the Philippines, institutes of higher education are governed by a charter enacted by the legislative branch of the government, which guarantees autonomy in several areas including academic standards, hiring and paying faculty members, and determining institutional priorities (Sanyal et al, 1981).

The second quadrant represents systems that are more uniform in nature, and also explicit about learning outcomes and expectations. The three economies that best fit in this section include Thailand, Malaysia, and the People's Republic of China. Malaysia has explicit outcomes in the Malaysian Qualifications Framework (MQF), which is covered by Section 35(1) of the Malaysian Qualifications Agency Act of 2007. A National Higher Education Strategic Plan (NHEP) was launched by the Prime Minister in 2007 (Malaysia 2008). There is also a high level of uniformity given that institutions, both private and public, are required to offer specific course content. However, with the ability to make enrollment and financial decisions at the institutional level, the system appears to be moving toward greater autonomy (Lee 2011). The Thai Qualifications Framework for Higher Education (TQFHE) and the Tenth National Economic and Social Development plan outline a high level of clarity about the role and outcomes of higher education (Thailand MOE, 2008). The People's Republic of China is the last economy in this quadrant. With no QF but a Higher Education Law of the PRC Chapter II Article 16, the purposes and other features of the system are more explicit. The People's Republic of China also offers a moderate level of uniformity among required courses.

Quadrant III includes implicit yet autonomous/diverse economies. Japan, Korea, Chile, and the United States do not have QFs for their respective systems (although Korea's QF is in development and Japan has some moderately explicit outcomes). Chile has a more moderate level of clarity about the role of higher education because law defines the function of the university related to research, reasoning, and the promotion of culture. Each of these economies has a high level of autonomy and/or diversity. These cases may represent a situation in which autonomy leads to more implicit outcomes.

Lastly, quadrant IV includes the economies that are both implicit and uniform. Although Brunei Darussalam is currently implicit, it is also developing a NQF for their uniform system of higher education institutions. This sovereign monarchy will likely connect the future NQF to the National Development Policy and Strategy, which includes long-range goals to achieve by 2035. One goal is to have an accomplished and well-educated people brought about by an education system that is comparable to the highest international standards (JPKE, 2007). Indonesia has no QF, but has the highest level of uniformity. Baunto (2011) notes the need for Indonesia to move toward a higher learning environment that fosters development of skills beyond basic competencies, (e.g. problem solving, entrepreneurial and creative) and to link education objectives with national, regional and district-level development planning. Last, Singapore is moderately more explicit than the other economies in this quadrant, due to its QF for only the vocational sector of higher education. In addition, there is some autonomy, but also reports of vestiges of a framework that promotes tracking and stratification within a rigid system (Tan 2011).

No quadrant or level indicates greater or less value. The typology represents the range of diversity within APEC and also demonstrates the challenge of developing any kind of unified learning profile for the region. Doing justice to a region of such extraordinary diversity (linguistic, cultural, religious, economic, ethnic, and political) is a formidable task for any overview. However, as the region is growing in global significance and encompasses higher education systems that range from relatively peripheral to highly developed, the analytical task is one of great importance.

Learning Domains

As identified in figure 2, there are varying ranges of clarity regarding the learning domains or outcomes for each economy. The ranges were derived from the questionnaires and publicly available documents. In addition, the domains identified were specific learning outcomes included in a QF or a central planning document for higher education, or they were national goals outlined in the law or by a national leader. Other economies derived some learning domains from employer surveys in an effort to align higher education with the need for skilled labor. Some economies have no mechanism for identifying national goals. Figure 3 is a representation of three categories of learning domains or outcomes: knowledge, skills, and values. They are not three completely separate categories as indicated by the shading and the nonlinear placement of specific domains. Domains that were mentioned more frequently include a tally of responses in the parentheses and appear at the top of the figure. Knowledge and skills tend to have the most overlap, with fewer crossovers between values and skills.

Figure 3. Range of Knowledge, Skills, and Values in APEC

Conceptual Model

The methodological and conceptual approach to this paper is to analyze data on the perceived learning domains or outcomes, and the role of higher education in APEC economies through the questionnaire (Appendix A). The conceptual model for the paper is the Lumina Foundation's (2011) *Degree Qualifications Profile* (DQP). Although higher education in many regions lacks a clear definition of the learning that degrees represent, the Lumina Foundation advocates that a key principle behind quality is learning. The Lumina DQP operates at three levels (Associate, Bachelor's, and Master's) specific to higher education in the economy for which it was developed. There are five learning areas: specialized knowledge, broad/integrative knowledge, intellectual skills, applied learning, and civic learning. Each area of learning is described with hierarchies of action verbs that operationalize the content at each level. This DQP will serve as a model for organizing supporting material and a plan for a learning profile for APEC economies.

According to Lumina (2011), a degree profile or a qualifications framework "illustrates clearly what students should be expected to know and be able to do once they earn their degrees" (p. 1). The illustrations should be applicable to any level of higher education and define what graduates need to be able to demonstrate in order to work, be a good citizen, participate globally, and live a successful life. Although participation in higher education has dramatically increased, the move to greater enrollments "has not been grounded in any consistent public understanding of what these degrees ought to mean" (Lumina, 2011, p. 1). In other words, awareness that individuals with degrees earn more or produce more has not been attached to what undergirds the degree (i.e., knowledge, skills, or values acquired).

Any kind of degree profile can address concerns or criticisms related to degree attainment by clearly and concretely defining degrees at all levels. According to Lumina (2011), "Though clarity is certainly the goal, this effort is in no way an attempt to standardize degrees" (p. 1). This type of assertion is conducive to systems that have a high level of diversity. It is important to note that clarifying how students should be expected to perform at progressively more challenging levels is not an attempt to weaken autonomy.

Any type of learning domains profile can provide a vocabulary for sharing good practice and general reference points for accountability (beyond suspect test scores or reporting the volume of graduates). An emphasis on cumulative integration of learning from diverse sources should also include the application of learning in a variety of settings. Lumina (2011) proposes a set of reference points that "benchmark what it should take for students to earn a degree at each of the three levels addressed" (p. 2). If learning is recognized as the proper determinant of the quality and value of degrees, it will likely correct the tendency to view the credential as an end in itself. The separation between learning content/outcomes and the credential will continue to degrade the potential of higher

education. When combined with inaccurate measures like global rankings, the purpose of higher education will become more obfuscated.

The operational aspect of the Lumina (2011) DQP begins with five basic areas of learning followed by an explanation of how to utilize the areas:

1. Broad, Integrative Knowledge: broad enough to support inquiry into the relationships among subject areas
2. Specialized Knowledge: deep enough to ensure mastery of strategic subject areas
3. Intellectual Skills: well-defined cognitive capacities and operations
4. Applied Learning: beyond what graduates know, what they can do with what they know – ultimate benchmark of learning
5. Civic Learning: a widely acknowledged purpose of higher education that requires engagement

A visual demonstration of how the learning areas combine with three levels of degree attainment is represented in figure 4.

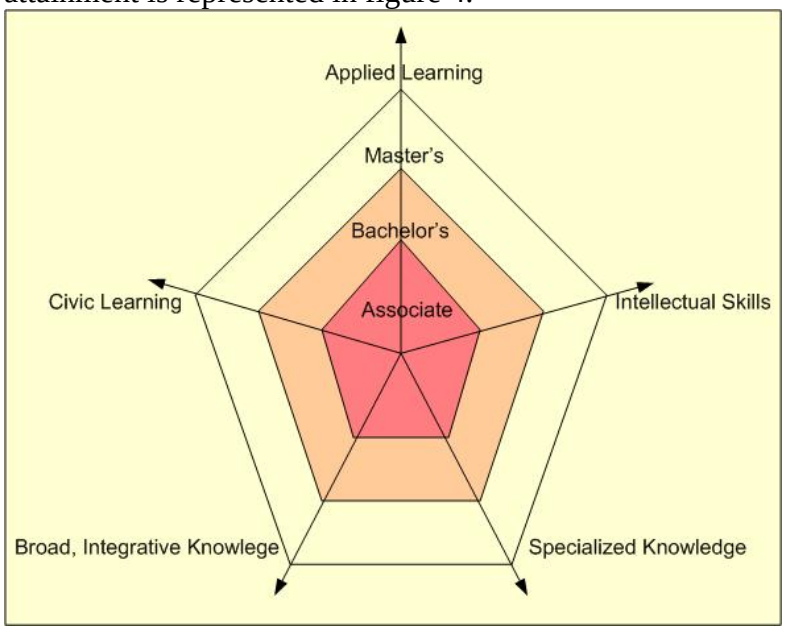

Figure 4. The Lumina (2011) Degree Profile Spider Web

The degree profile is practically applied through the web visual (as presented in figure 4) that includes a structured series of ladders that build and support learning. The five anchor lines represent the basic learning area, and the three points along each anchor line represents the three degree levels. The core of learning grows progressively larger as students build their knowledge. As mentioned previously, this model is not intended to lead to rigid standardization. Even if the core learning outcomes are expected in all programs, the range of course content can still vary widely by institution, discipline, and even class section. To illustrate the profile's ability to accommodate a wide variety of institutional types, Lumina (2011) plotted three distinct institutions on the spider web to show the ability for institutional character to emphasize certain areas. For example, a for-profit institution with online learning and a brief history may emphasize application and specialized knowledge more than a large public institution with a history of civic learning or a private institution that focuses on broad, integrative knowledge through liberal arts.

The approach is designed to be clear and flexible, allowing for greater communication and mobility while maintaining crucial areas of emphasis and historical characteristics for institutions. The profile was developed from the latest research on learning outcomes and after evaluating practices around the world. Although the profile was developed for a diverse

and autonomous system with implicit learning domains, the question as to whether this model could be useful across an incredibly diverse region that spans half the globe is a daunting proposition.

Utilizing the sample of 16 economies and the domains represented in figure 3 and the Lumina model represented in figure 4, figure 5 represents a template for what an APEC learning profile might look like. The representation, though developed based on the data collected, is not intended to be comprehensive or a full working model (as in the case of the Lumina DQP). Instead, it is a proposed template to create further discussion and debate and to potentially refine based on more feedback and knowledge from the various economies in APEC.

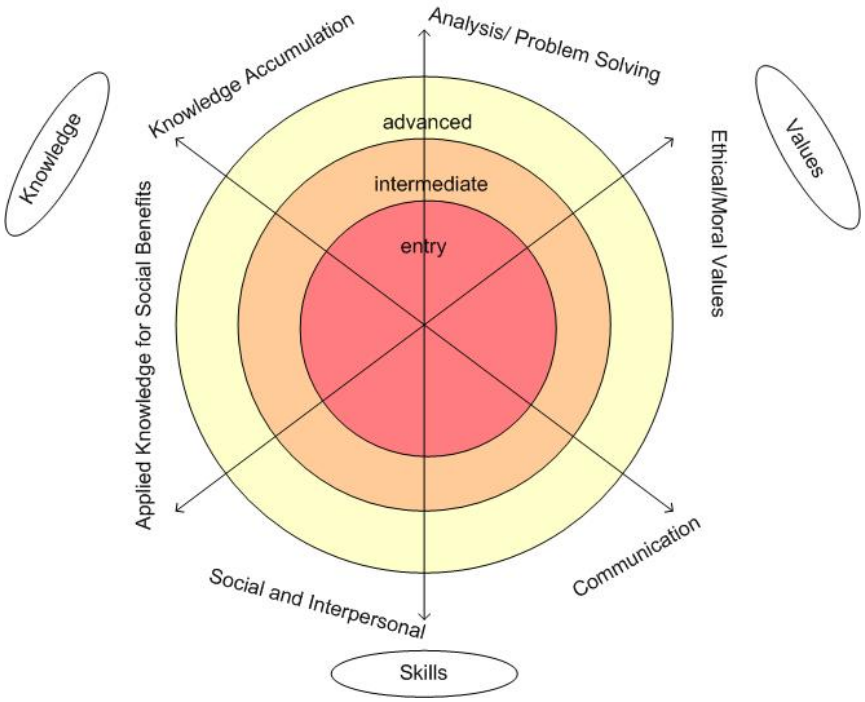

Figure 5. APEC Learning Profile

In general, this learning profile is designed to highlight relevant education that, in turn, promotes social development. It is designed to operationalize explicit but flexible learning domains that may increase clarity and mobility. Figure 5 indicates the general categories (knowledge, skills, and values) and domains to reflect general points of reference for APEC economies. Similar to the Lumina approach, economies and individual institutions have the ability to map their approach on the profile and emphasize one area more than others. For example, an economy or an institution that promotes a certain kind of religious education may use the ethical/moral values domain as a larger area of focus. The domains are very broad, to allow for interpretation and greater levels of specificity for respective economies. Lastly, the three levels of knowledge (entry, intermediate, and advanced) are also general to allow for the diverse approaches of higher education systems to operate in the same profile. For example, the range of entry-level postsecondary education that economies utilize includes pre-university education, polytechnic, vocational, technical, community college, or associate degrees. Intermediate education may best represent the traditional bachelor's degree, while the advanced domain could include everything that is post baccalaureate.

Public and Social Benefits of Higher Education

Growth in the Asia-Pacific is likely contingent on the capacity of states to diversify and grow their economies. Higher education can play a key role in educating citizens with the skills to implement new technologies that "can help to address the challenges arising from population growth, limited arable land, endemic diseases, urbanization, energy costs, and climate change" (World Bank, 2010, p. 1). However, in order for the Asia-Pacific to increase the benefits, economies and their respective higher education institutions may need to increase support for quality training, research, and professional opportunities for their students. As additional funding for higher education from the government can be difficult to obtain, cooperative agreements can create pools of resources that are more capable of serving students in the region.

The value of higher education includes the benefits to society that extend far beyond the individual benefits for those students who earn a degree. To understand the role of higher education in development, the social value is a key component. McMahon (2009) defined three types of benefits that can result from higher education:

1. Private Market Benefits – earned by an individual as income.
2. Private Non-Market Benefits – accrued by individual/family in the form of non-monetary, quality of life improvements.
3. Social Benefit Externalities – accrued to all of society.

The combination of these three categories represents the total benefits from higher education. The framework for understanding these benefits was developed primarily using data from developed countries. If the same methodological procedure were used in the Asia-Pacific, the results may vary, but the conceptual framework remains a valuable contribution to understanding the role of higher education in any society.

Omitting the non-market benefits has caused and continues to cause more narrow estimates. The public has a poor understanding of the value of higher education's social benefits, even though it is estimated that social returns constitute a majority of the return on the investment. McMahon (2009) estimates that social benefit externalities constitute about "52 percent of the total benefits of higher education" and further advocates that this be used as a guide for public investment (p. 255). Higher education is most often viewed as an investment for securing a higher paying job for personal economic benefit. This individualistic perspective weakens the case for public investment in higher education (Collins 2011). Some economists contend, for example, that private incentives to attend college are sufficient to encourage enrollment rates that capture the majority of any public benefits the college might offer (Bloom et al. 2006). However, if only private market benefits are considered, total returns are underestimated by 2.5 times.

Several studies have documented the multiple ways universities contribute to development. Direct contributions include; patenting and licensing discoveries, adaptation to knowledge origination elsewhere, integrating previously separate areas of technology, and unlocking and redirecting knowledge already present but not in productive use. Further, evidence demonstrates that higher education can improve a nation's health, contribute to reduced population growth, improve technology, and strengthen governance (Bloom et al. 2006). Castells (1994) writes that higher education is an important form of human capital development, which should be regarded as the "engine of development in the new world economy" (p. 15). This evidence has also been confirmed by World Bank sponsored publications over the last decade (TFHES 2000; World Bank 2002, 2010).

In the questionnaire, respondents from the 10 economies noted a variety of the public benefits listed here. In addition, each of the economies were able to cite the ways in which their government has taken note of the importance of higher education in their national plans and strategies. Although the recognition of the role of higher education and the particular

public benefits mentioned were all varied, there was unanimous recognition that it is a key component of the future.

Conclusion

The APEC mission statements includes that a "primary goal is to support sustainable economic growth and prosperity in the Asia-Pacific region and that APEC "initiatives turn policy goals into concrete results and agreements into tangible benefits." It is clear that APEC economies recognize the benefit of higher education and provide support for its further development. In addition, there is a great deal of focus on international mobility, degree quality, and accountability. A key piece of the equation is the nature and content of learning domains or outcomes. Quality and accountability can never truly be understood until the domains are clarified. The potential for international cooperation to promote mobility, generate knowledge, and produce greater social benefits is immense. The remaining and difficult portion of the equation involves taking knowledge and goals and producing results and tangible benefits. The profile of learning for the Asia-Pacific includes a diverse array of approaches and initiatives with great potential for building a stronger and more global learning system.

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Appendix A

APEC Higher Education Expectations and Competencies Questionnaire
June 6, 2012

Dear Representative:

The 2012 APEC Education Research and Policy Pre-ministerial symposium included an objective to, "Deliver a research basis on which to develop the APEC education strategic plan for developing students' 21st Century skills and new postsecondary education systems that can create flexible, adaptable, skillful workforce addressing the demands of the global economy and regional economic integration." The APEC Education Ministers, in their 2012 5th Joint Statement also recognize(d) "the importance of preparing a qualified workforce with 21st century skills, promoting cultural understanding, and continuing quality improvement in TVET and higher education."
Given the importance of 21st century competencies, this questionnaire is designed to identify expected outcomes and levels of quality in higher education (defined as postsecondary colleges and universities) in APEC economies. The objectives of the project are to initiate a sustained discourse and identify a common set of referents of quality in higher education. Implications include potential actions or models based on successful practices that can be adapted to improve quality across a range of higher education institutions or systems.
The purpose of this survey is to build on the findings of the *APEC Quality in Higher Education* (August 2011) conference, papers, and discussions by focusing in greater depth on facets of quality that emerged as questions in need of further examination, such as student learning outcomes and globally relevant competencies.

This survey is expected to take between two and three hours to complete. Your responses are requested by June 28, 2012 via email at apec.survey@hawaii.edu.

If there are questions that can be supplemented with information from your Ministry or Department of Education, please feel free to consult the appropriate entities to complete the questionnaire. Your participation is greatly appreciated. If you have any questions, please feel free to email me.

Best regards,
Christopher Collins
University of Hawaii at Manoa
apec.survey@hawaii.edu

1. What is the typical age of entry for postsecondary education? ___

2. Please list the stages of postsecondary education (e.g., associates, bachelors, masters, etc.) in the table below with corresponding number of years it takes to complete the stage, age range, and percent of the population enrolled or having completed the stage.

Stages of Postsecondary Education	Number of years	Expected age range	% Population Enrolled or Completed

3. What is expected from a higher education graduate in your economy? For example, is there a National Qualifications Framework in your economy? What are the major categories or competencies? How would your characterize the impact of this framework?

    a. If your economy does not have a National Qualifications Framework, please give examples of what is expected of a college graduate. This could be in the form of a mission statement, statement of goals, or general impressions about the expectations of graduates of higher education.

4. What areas of study and skills are included as common course requirements in higher education (that is, course topics required by all students regardless of specific field or discipline of study)?

5. What skills, values, attitudes, and competencies are *employers* in your economy seeking from postsecondary graduates? For example, are there labor market studies that identify skill gaps or skills needed of postsecondary graduates by employers?

    a. Please provide examples from leading employers about skills needed from postsecondary graduates.

6. Do postsecondary institutions work with stakeholder advisory groups from industry to help identify required skills, competencies, knowledge, and application? If so, in

what capacities (e.g., apprenticeships or internships for students in companies or industries, or advisory committees from industry to universities)?

   a. Are there successful examples of industry-university partnerships? How or in what capacity? What is their impact or outcomes?

7. Higher education is widely recognized as a benefit to individuals who earn a degree. What benefits to society (beyond benefitting individuals), does higher education provide? For example, are there studies in your economy that link higher education to societal health, lower crime rates, civic participation, or other examples? Please list any examples or impressions.

8. Quality Assurance has been an ongoing initiative in the APEC region. Are there regional networks with which your economy or college/university or education organization participates? If so, what are they and what are the benefits of participating?