



**Asia-Pacific
Economic Cooperation**

Global Competencies and Economic Integration: Final Report

APEC Human Resources Development Working Group

December 2017

APEC Project: HRD 02 2015

Produced by

Joint National Committee for Languages
P.O. Box 386
Garrett Park, MD 20896 USA
Tel: 202-580-8684
Email: info@languagepolicy.org
Website: <http://languagepolicy.org>

and

Leed Management Consulting, Inc.
8757 Georgia Avenue, Suite 460,
Silver Spring, MD 20910 USA
Tel: 1-240-863-0500
Email: info@leedmci.com
Website: <http://leedmci.com>

For

Asia-Pacific Economic Cooperation Secretariat
35 Heng Mui Keng Terrace
Singapore 119616
Tel: (65) 68919 600
Fax: (65) 68919 690
Email: info@apec.org
Website: www.apec.org

© 2017 APEC Secretariat

APEC#217-HR-01.7

APEC Project HRD 02 2015: Global Competencies and Economic Integration

Final Report

Contents

- 1 Introduction to Project: Objectives and Work Plan
 - 2 Framework for Global Competence: Definition and Justification
 3. Business Requirements for Global Talent: APEC Survey of Global Competencies
 4. Measuring Outputs
 5. Recommendations
 - 5.1 Acknowledge the need and ramifications of GC for Human Capital, Economic Growth and Integration, and agree on definition, components and placement of GC in both the APEC Education Strategy and its Action Plan
 - 5.2 Establish standards and assessments of GC education best practice and educational outputs
 - 5.3 Infuse GC into education systems through innovative pedagogies and ICT delivery systems that exploit the benefits of GC
 - 5.4 Build education and industry partnerships and interactions as a critical element of GC
 - 5.5 Strengthen APEC-wide integration of people, technologies, mechanisms and standards in pursuit of GC
 6. Integration of Global Competence with Action Plan for APEC Education Strategy
 7. Conclusion
- Annex A: APEC Workshop on Global Competencies and Economic Integration Meeting Report
- Annex B: Research on Global Competence and Economic Growth

1. Introduction to Project: “Global Competencies and Economic Integration”

The APEC employment sector has ever-increasing requirements for internationally capable employees – those with global competencies who can work and engage with business partners and clientele beyond an economy’s borders. The shortage of such individuals with these skills across APEC economies constitutes a barrier to both economic integration and to trade in goods and services. Noting this increasing demand, the United States in October 2015 was awarded a project by the APEC Human Resources Development Working Group entitled “Global Competencies and Economic Integration.” Building on the APEC skill mapping project and the 2014 US Global Talent Survey at Michigan State University, the project goals were 1) to assess the demand for global talent across APEC economies and 2) to develop recommendations for APEC economies to improve global talent streams.

The APEC Global Competencies and Economic Integration had the following objectives:

- To develop recommendations for an APEC-wide framework to describe global talent and its requisite elements;
- To compile APEC-wide data on the business requirements for global talent and on the added value of such talent for trade and regional economic integration;
- To develop a methodology for measuring the outputs of global talent by creating a pilot survey of the educational sector in selected APEC economies (the USA and Japan and potentially others); and
- To develop recommendations for APEC economies to strengthen their global talent streams, and to present these recommendations to APEC HRDWG.

A primary outcome of the project was to infuse the current APEC Education Strategy Action Plan with a workable definition of global competency, goals to strengthen global competency across APEC economies, and indicators by which to measure the progress.

The first step in the project was to conduct a survey across APEC economies of the employment requirements for global expertise among leading employers, and of SMEs. A secondary component of the project included pilot surveys of higher education and tertiary education institutions in selected economies, to assess the output of globally competent individuals. Based on the responses to the survey on the projected requirements for linguistically and culturally skilled individuals, the project developed concise employment requirements for global expertise, formulated during the APEC Workshop on Global Competencies and Economic Integration, held 7-8 August 2017 in Monterey, California, USA with representatives from ministries of education, labor, and trade from nine APEC economies. Participants in the Workshop sought to arrive at the

working definition of global competency and to develop text that would exemplify the infusion of the GC concept into the Action Plan of the APEC Education Strategy.

The final pillar of the project was a report to APEC with policy recommendations for addressing global talent gaps, including recommendations for including global competency in the Action Plan of the APEC Education Strategy. Additional project deliverables include a report on the APEC Workshop on Global Competencies and Economic Integration (excerpts of which can be found in Annex A) and a project website compiling the project details and results to communicate the importance of global competency in APEC economies to the general public.

The project was undertaken by the Joint National Committee for Languages in the United States, in cooperation with the United States Department of Education and Leed Management Consulting, Inc. The project also included participation from external research consultants, including the American Council on the Teaching of Foreign Languages, the American Councils Research Center, and the Michigan State University's Collegiate Employment Research Institute. The various stages of the project, including the survey of employers and the Workshop on Global Competencies in Monterey, CA, received participation from a total of 13 APEC economies: Australia; Chile; China; Indonesia; Japan; Korea; New Zealand; Peru; the Philippines; Singapore; Thailand; the United States; and Viet Nam.

The current report is based on the surveys, extensive research on 'Global Competency', and the discussion of participants at the APEC Workshop on Global Competencies and Economic Integration.

2. Global Competency: Definition and Justification

"Global Competency," "Global Talent," "global competencies" etc. have received a lot of attention lately and clearly highlight an important trend in 21st century education and employment, though these related terms can mean different things to different people. When discussing such new and developing topics as global competency, it can be helpful to review definitions developed by other organizations involved in the field. Most recently, the OECD has defined "Global Competency" for PISA accordingly:

Global competence is the capacity to analyse global and intercultural issues critically and from multiple perspectives, to understand how differences affect perceptions, judgments, and ideas of self and others, and to engage in open, appropriate and effective interactions with others from different backgrounds on the basis of a shared respect for human dignity.

According to this definition, global competency encompasses three dimensions: “knowledge, skills and attitudes” (OECD: “Global Competency for an Inclusive World”). Skills are both cognitive and behavioral, which include: “... the ability to: communicate in more than one language; communicate appropriately and effectively with people from other cultures or countries; comprehend other people’s thoughts, beliefs and feelings, and see the world from their perspectives; adjust one’s thoughts, feelings or behaviours to new contexts and situations; and analyse and think critically in order to scrutinise and appraise information and meanings.”

At the economy level, the United States Department of Education published a “Framework for Developing Global and Cultural Competencies to Advance, Equity, Excellence and Economic Competitiveness” in 2016 to outline a common understanding of the skills and abilities of globally competent students and workers. The framework includes four dimensions of such global competencies: Collaboration and Communication, World and Heritage Languages, Diverse Perspectives, and Civic and Global Engagement.

Participants in the 2017 APEC Workshop on Global Competencies and Economic Integration in Monterey, California agreed upon an APEC-specific definition of global competencies that was reviewed by delegates to the Workshop on the Action Plan of the APEC Education Strategy, held 25-26 September 2017 in Beijing, China. Delegates to this Beijing workshop adapted the European Qualifications Framework for Lifelong Learning’s definition for competencies generally as follows:

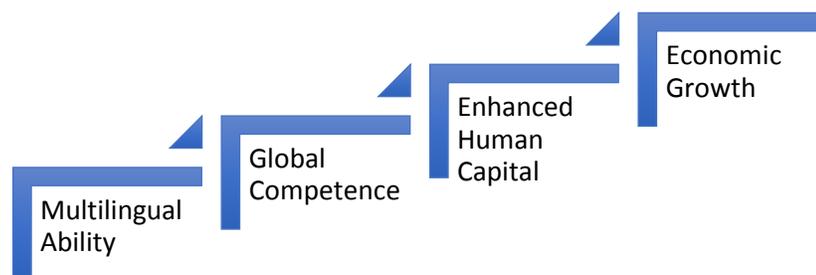
The combination of knowledge, skills and personal, social abilities, that are applied in work or study situations and in professional and personal development.

Based on this definition, Beijing workshop delegates developed the following definition for global competencies:

Competencies that enable a person to think innovatively, and communicate and interact with people from diverse backgrounds and cultures.

This definition should ensure that all economies have similar understanding as we discuss how to improve and promote global competencies as a principal means to achieve the goals of the APEC Education Strategy aimed at economic growth and integration.

There is growing evidence that connects GCs directly to economic growth, since one of the principal driving forces of economic growth is enhanced human capital and GCs, such as multilingualism, are a critical element in enhanced human capital (see Annex B for research into the ties between GC and economic growth). This logic is represented in the following figure:



The best indicator of successful workforce education in boosting GDP is quality schooling, evidence for which is provided by international testing instruments such as PISA. The cognitive skills currently tested by these instruments, including critical and creative thinking, are strongly supported by research results on the “cognitive advantages of bilingualism and ‘outside’ (global) perspective-taking.” PISA is preparing to test “global competency” in its revised 2018 version, a clear recognition of the importance of its constituent elements to education around the world, just as the United States Department of Education has published its “Framework for Developing Global and Cultural Competencies to Advance Equity, Excellence and Economic Competitiveness” with a strong focus on bilingual ability. In sum, the increased productivity of human capital as a driving force of economic growth and APEC integration can be strengthened by the knowledge, skills and attitudes of Global Competency. Therefore, as a key to productivity and economic growth, Global Competency deserves consideration as a priority of education systems, along with STEM, and inclusion in the APEC Educational Strategy and its Action Plan.

As noted above, existing frameworks on GC make clear that it strongly entails learning and working experiences abroad, ‘soft’ and global skills along with the technical, effective collaboration among the suppliers and consumers of GC, and, finally, true multilingual abilities. Emphasis is placed on multilingual ability not only as a primary enabler of global competency, but also as a pillar of global competency that is both easily measured and easily operationalized. Just as human capital is key to economic growth and GC is a critical aspect of human capital, so too is multilingual ability the principal enabler of GC. By multilingual ability here is meant not only the languages of hearth, community and economy, but also facility in an ‘outside’ language, be it of the

broader region or global English, that broadens the perspective and access to worlds beyond the comfort zone of one's home environment. Research has shown a significant correlation between bilingualism and cognitive abilities, particularly creative and problem-solving abilities. Strengthening language education to ensure a multilingual workforce is an educational strategy towards infusing abilities and mindsets that are the basis of innovation throughout the economy.

One of the keys to GC is multilingual ability, which enables engagement beyond one's local and economy-level environment. Beyond the advantages of interacting with fellow employees and clientele from diverse language and cultural backgrounds, bilingual abilities signify to potential employers the ability to think flexibly and work more collaboratively, both of which are desired traits in new hires. Public and private employers place strong hiring preferences for candidates with strong language ability, even requiring bilingual abilities as a requirement for employment. Successful student and professional mobility require the ability to communicate and to understand different cultural settings. Each economy must choose the language or languages of focus, whether global or regional, enabling this external engagement, and incorporate them throughout its education system.

3. Business Requirements for Global Talent: APEC Survey of Global Competencies

A major object of the current project is to determine, by a survey, the need for Global Competency in the labor market in APEC as important input to the recommendations for APEC Human Resources Development Working Group and the APEC Education Network to improve Global Competency across APEC. Accordingly, JNCL administered the survey in which 124 organizations took part, of varied sizes from fewer than 100 to over 10,000 employees.¹ The survey was administered to employers from seven APEC economies (Australia, Canada, Korea, Japan, New Zealand, Singapore, United States).

Among the key findings of the survey, respondents agreed or strongly agreed with the following:

- A. Their organization values employees who can show that they are able to work effectively with clients and businesses from a range of difference cultures (almost 90% of respondents agreed or strongly agreed).

¹ Conservative estimates indicate that the organizations who responded to the survey represent between 215,224 and 355,376 employees.

- B. Their organization values previous multicultural experience (over 80% of respondents) and foreign experience (almost 70%) to integrate into diverse workplace teams, engage with global and regional markets, or adapt to new locations. However:
- 45% of respondents indicated that their organization has a recruitment strategy giving advantage to candidates with international experience.
 - 50 indicated that their organization has a recruitment strategy which gives advantage to candidates with multicultural experience.
 - 49% indicated that their organization has a recruitment strategy which gives advantages to candidates with overseas work, internship, or advanced study.
- C. Their organization values new hires with knowledge of more than one language (over 80% of respondents) and values employees with the ability to speak other languages that are critical to their economic growth (66%). However:
- 47% of respondents indicated that their organization has a recruitment strategy which identifies and/or records candidates' language abilities in languages other than English (or in English for organizations where this is not the lingua franca).
 - 39% indicated that their organization has a recruitment strategy which specifies levels of foreign language competence.
 - 38% indicated that their organization has a recruitment strategy which gives advantage to multilingual candidates.
 - 19% indicated that new hires in their organizations are required to speak at least one additional language than their native language. require knowledge of more than one language.²
- D. Finding skills or competencies relating to their global operations among new or recent college graduates to be moderately to very difficult (over 60%).
- E. There is a particular need for language skills in service industries and service positions.
- F. A variety of college majors are sought in conjunction with language skills and international experience.

Finding A above offers concrete evidence of businesses' understanding of the need for a multilingual, culturally competent workforce, i.e. "multicultural capital." However, there are two disjunctions revealed by findings B and C. First, between 'values' and

² The percentage of respondents to the APEC survey that require knowledge of more than one language is almost twice that of the 11% of USA respondents with such a requirement.

‘recruitment,’ where the values asserted are only partially matched by their implementation in recruitment (respondents value multicultural and international experience at 80% and 70% but recruit at only 45% and 50%, respectively; they value language at 39% but recruit at only 19%). Second, between multicultural/foreign experience and language ability, where the ‘valuing’ stresses multicultural and international experience even more than language ability (respondents value and recruit multicultural and international experience at 51% and 45% respectively; they broadly value knowledge of a second language at 80% but only 19% require language in recruitment).

These disjunctions raise questions that only further research can answer. For example, is the disjunction between ‘values’ and ‘recruiting’ an inevitable result of ideals and real-world practice, or a survey artifact dependent on whomever answers the survey? And is the disjunction between multicultural/foreign experience and language a matter of the perceived unavailability of language competence, as indicated by the last finding above, or affected by many respondents coming from English-speaking economies where traditionally there is less access to a second language? Or is this second disjunction a result of the fact that language ability requirements are industry-specific or of the terms used in the survey (“required” may be problematic for businesses with language technology and outsourcing capabilities, and “knowledge” and “ability of language” may need to be more specific)?

The survey results present concrete evidence of an understanding in business of the need for a multilingual, culturally competent workforce, or “multicultural capital.” However, there is clear room for growth in how employers prioritize language and culture knowledge.

4. Measuring Output

The fourth objective of the project was to design an instrument that could be used to determine the feasibility of surveying the output of globally skilled individuals in APEC economies. The American Council on the Teaching of Foreign Languages (ACTFL) and JNCL partnered in developing and piloting a self-assessment instrument on language ability, the design of which is outlined here.

The target of the study was to determine outputs of global talent from post-secondary institutions, using established and validated self-assessment scales (e.g. Stansfield et al., 2012). The testing instrument was a questionnaire on SurveyMonkey, which was piloted with three groups: USA-based (Pacific coast), Japan, and the UK (for generalizability). The survey asked questions about language(s) studied (up to two),

when they were studied and for how long. Respondents were also asked whether they had any “immersive” language learning (e.g., study abroad) and for how many years.

Respondents were then asked to self-assess proficiency in speaking and cross-cultural competence across a range of tasks in the survey excerpts found below.

12. Please select the statements that best describe your ability to speak this language.

	With confidence	Somewhat	A little	Not at all
I can name basic objects, colors, days of the week, food, clothing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can list the numbers from 1-10.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can ask simple questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can give basic information about myself, work, familiar people and places.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can describe my daily routine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can participate in simple conversations about familiar routines.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can talk about things that have happened.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Finally, please select the statement that best describes your ability to handle cross-cultural communications in this language.

	With confidence	Somewhat	A little	Not at all
I can identify the obvious differences between my culture and the target culture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can avoid the major "taboos."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can avoid taboo topics and behavior.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can observe basic courtesy requirements when interacting with people of different gender, age, or status.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can follow basic social norms and rules of etiquette, such as in accepting and refusing invitations, offering and receiving gifts, and requesting assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The next steps in the process are conducting analysis, interpreting the pilot data, and revising the questionnaire for usefulness and scalability.

5. Recommendations

To reflect the vital importance of GC to the economic success, significant references to GC will be inserted in appropriate places throughout the APEC Education Strategy and the Education Strategy Action Plan, specifically in its “Objectives,” “Instruments and Tools,” and “Targets and Indicators” sections. Delegates to the APEC Workshop on Global Competencies and Economic Integration in Monterey, California began this process, the results of which are documented in Section 6 below.

The following recommendations aim at broad areas that should inform policy development among member economies, consistent with their domestic contexts, and should inform the process to infuse the promotion of GC throughout the Action Plan where relevant.

1. Acknowledge the need for and ramifications of GC for human capital, economic growth and integration, and agree on definition, components and placement of GC in both the APEC Education Strategy and its Action Plan
2. Establish standards and assessments of GC education best practice and educational outputs
3. Infuse GC into education systems through innovative pedagogies and ICT delivery systems that exploit the benefits of GC
4. Build education and industry partnerships and interactions as a critical element of GC
5. Strengthen APEC-wide integration of people, technologies, mechanisms and standards in pursuit of GC

Each recommendation is provided with brief notes for suggestion implementation, along with rationales for inclusion in APEC projects and economy-level initiatives.

Recommendation 1. Acknowledge the need for and ramifications of GC for human capital, economic growth and integration, and agree on definition, components and placement of GC in both the APEC Education Strategy and its Action Plan.

Implementation: To pursue this recommendation, APEC economies may:

- Agree on definition, components and placement of GC in both the APEC Education Strategy and its Action Plan.
- Resolve potential confusion of frequent use of “global competencies” vs. a generic “global competency.” The former “competencies” should be replaced by specifically named components, such as knowledge, skills, attitudes etc. that constitute the general notion of “global competency.”

Rationale: While “global competencies” are part of the rhetoric of educational improvement and economic growth, their specification must be included, using existing frameworks as starting points. Rigorous implementation presumes efficient and effective specification.

6th APEC Education Ministers Meeting Joint Statement, 2016 (AEMM 2016): “We also welcome the development of the APEC Baseline Report on Current Education Status in the Asia Pacific region, as an important tool for enhancing mutual understanding, and learning of educational development among APEC member economies. We urge APEC officials to update this important information when necessary.”

2016 APEC Leaders’ Declaration (ALD 2016): “We must focus our efforts on improving the quality, mobility and access to education including in partnership with employers, and soft skills development.”

Recommendation 2. Infuse best practice and Quality Assurance across GC efforts

Implementation: To pursue this recommendation, APEC economies may:

- Identify and document best practices
- Collect data on the supply and demand of GC to appreciate differences among APEC economies and to establish baselines for measuring progress against objectives and timelines (the existing survey data provide strong indications but need to be expanded to establish firm base lines against which all progress can be measured).
- Establish standards and assessments of GC, taking advantage of existing frameworks like those of OECD, the World Economic Forum, and the United States Department of Education to develop APEC-wide or economy-specific testing instruments.

Rationale: Clearly, without a system to identify and assure quality implementation of GC education, the effort will not be undertaken by educational systems, let alone resource-poor economies. It is to APEC's advantage that resources and facilities be provided to lower the risk of underperformance.

AEMM 2016: "We therefore encourage member economies to start implementing the APEC Education Strategy, including by setting annual goals in the 2017 HRDWG work plan..."

"We also welcome the development of the APEC Baseline Report on Current Education Status in the Asia Pacific region, as an important tool for enhancing mutual understanding, and learning of educational development among APEC member economies. We urge APEC officials to update this important information when necessary."

Recommendation 3. Infuse GC into education systems through innovative pedagogies and delivery systems that exploit the benefits of GC

Implementation: To pursue this recommendation, APEC economies may:

- Enhance intercultural educational and language immersion, including domestic, overseas and virtual programs
- Encourage digital delivery modes enabled by ICT that enable "blended" and "on-line" learning as well as transnational education
- Promote innovative curricula with a focus on critical and creative thinking and problem solving
- Strengthen language education to enhance global competency, acknowledging a significant correlation between bilingualism and creative problem- solving abilities in multicultural settings and diverse working environments.

Rationale:

Peru's Minister of Education Jaime Saavedra, chair of AEMM 2016: "The world of work is changing rapidly and in ways we cannot foresee... We are joining forces in APEC to modernize our education systems to better prepare students of all ages to engage in an increasingly complex and globalized economy."

AEMM 2016: "We acknowledge that human capital development should focus on boosting workers' skills to increase the competitiveness of enterprises through innovation in processes and productivity. We

recognize that the acquisition of soft skills is just as important as technical capabilities.”

While mobility and ICT-enabled instruction are commonly recognized and employed, the latter refers to innovative programming derived from the cognitive benefits of bilingualism.

“...recent scientific discoveries that demonstrate that the use of two or more languages changes minds and brains to be more open to learning, more cognitively flexible, and more resistant to cognitive decline.” (US National Science Foundation, Office of International Science & Engineering PIRE project: “Translating cognitive and brain science in the laboratory and field to language learning environments,” led by Judith Kroll and her colleagues)

The benefit of bilingualism for education is clear, given the fact that juggling two or more languages enhances ability to ignore irrelevant information, switch from one task to another, resolve conflict across different alternatives (Kroll & Dussias), as well as reasoning, problem solving, planning, abstraction, mental arithmetic, first language (L1) comprehension (Linck et al, Psychonomic Bulletin, 2013). However, while the connection between multilingual learners and enhanced educational and employment success has been established, two educational strategies are implied: First, second language education must be made available to all learners as a means of providing equal access to the cognitive advantages that benefit education and employment; Second, school curricula and pedagogies must exploit and reinforce the critical and creative thinking buttressed by multilingual usage. While the former strategy depends on educational policy and resources, the second requires partnerships between researchers and practitioners for curricular design and teacher development.

Research has shown that language immersion education is the most appropriate for addressing both strategies in “controlled” educational immersion, ideally integrating “sequential” and “emerging” or “partial” bilingualism students with language skills acquired at home in the natural/authentic environment. The focus required rigorous validated instrumentation for assessing proficiency (Standardized US, European, and economy-specific tests), usage and impact.

Recommendation 4. Build education and industry partnerships and interactions

Implementation: To pursue this recommendation, APEC economies may:

- Promote partnerships and interactions among employers and educators depend on mutual self-interest. In particular, educators turn out students with the GC qualifications that employers need, and employers actively recruit and hire these GC qualified employees.
- Encourage employers to build this GC-capable workforce by supporting them in:
 - Identifying HR needs that are critical to success in today's globalized economies, particularly those encompassed under the GC; including language, intercultural experience, and creative and critical thinking skills.
 - Revising and redeploying APEC surveys on GC educational supply and industry demand
 - Sending explicit GC *demand* signals to academe
 - Understanding how current educational *supply* system works, its outputs and applications
 - Focusing on long-term *capacity, with strategies for hiring and/or outsourcing*
- On the other hand, economies can support educators in:
 - Understand changing needs for GC in business, specifically for transnational and global employers, domestic services for domestic immigrant and heritage speakers, Language Service Providers (LSPs) providing translation, localization, and interpreting services.
 - Focus on specific tasks and contexts in which GC-competent individuals must be able to function effectively
- Strategies to improve dialogue and mutual advocacy between educators and employers may include:
 - Bridging mechanisms, like industry organizations (e.g. Business Roundtable; Chamber of Commerce; Rotary International) and language businesses, economy-level and regional language and international studies organizations, university think tanks, and business schools

- Developing effective PR campaigns and messaging, extending the understanding of multilingualism to educational achievement and attainment, equal access, and employment

Rationale:

AEMM 2016: “Research, development and innovation will be further enhanced in APEC economies through efforts to increase government-industry-academia collaboration.”

ALD 2016: “We recognize the vital importance of continuing work towards an inclusive education agenda that will enable people of all ages to meet the challenges of a globalized world. Furthermore, realizing that equitable access to high-quality education and training will allow our people to develop skills and competencies from early childhood and throughout their lifetime, we must focus our efforts on improving the quality, mobility and access to education including in partnership with employers, and soft skills development...

“We welcome the contributions of the APEC Business Advisory Council (ABAC) to our work as well as from the Pacific Economic Cooperation Council (PECC), international and regional organizations, the private sector, local government executives, and academia and other relevant stakeholders.”

Recommendation 5. Strengthen APEC-wide integration of people, technologies, mechanisms and standards with the specific goal of advancing GC in education and employment

Implementation: To pursue this recommendation, APEC economies may:

- Encourage and coordinate GC action projects of individual economies as well as joint efforts
- Develop a place to highlight and promote best practices of GC across the APEC economies
- Use the World Economic Forum “New Vision for Education” as a framework for developing ICT infrastructure and ICT-based GC education projects and exchanges
- Develop GC-specific standards across APEC, with specification of definition and components, to include assessments for supply and demand, language, PISA (GC, critical and creative thinking)
- Establish ERASMUS-like APEC-wide mobility programs for students and faculty

- Develop mechanisms to house, track, assess and report on digital networks supporting GC, APEC-wide exchange programs, standardized GC testing (comparative local, regional, global), etc.

Rationale:

ALD 2016: “Towards real and functional connectivity in the region
We recognize that strengthened connectivity will contribute to opening up new sources of economic growth, fostering inclusive and interconnected development, advancing regional economic integration and bringing APEC economies closer as a community...

“We reaffirm, therefore, our commitment to the overarching goal of a seamlessly and comprehensively connected and integrated Asia-Pacific by 2025, express our appreciation for the efforts and accomplishments of APEC members in implementing the APEC Connectivity Blueprint 2015-2025, and encourage the use of policy dialogues noted in the Blueprint to exchange best practices and information on relevant topics.

“We reiterate the importance of people-to-people connectivity and remain committed to its improvement through, inter alia, further development of tourism, cultural exchange, mobility of business people, cross-border education and travel facilitation.”

6. Integration of GC in Action Plan of APEC Education Strategy

The APEC Education Strategy of 2016 marked a clear shift toward a new direction that would guide EDNET projects and initiatives toward a comprehensive approach to education and training for the future. The development of the APEC Education Strategy, facilitated by the EDNET Coordinator over a series of constructive working groups and thorough intersessional collaboration across all member economies and addresses many vital topics related to educational policy and practice. The APEC Education Strategy was endorsed at the 6th APEC Education Ministerial Meeting, held in Lima, Peru in 2016, where Ministers made clear the importance of global competencies in the following quotes from the 2016 Joint Statement, *An Inclusive and Quality Education*:

10. Recognizing the crucial role of education and training in fostering economic and social change we welcome the enthusiasm and effort from all member economies in the promotion of projects and initiatives, within the HRDWG and its networks. We agree to support education and training

cooperation through educational research and policy analyses over the next four years.

21. “The complexity and dynamism of global markets has demonstrated a clear need for APEC member economies to foster the development of global competencies that prepare learners to meet the needs of the regional economy....APEC economies will work together to strengthen partnerships between governments, educational and TVET institutions and the private sector to better facilitate the transition from education to work, and lift participation in lifelong learning, and encourage the development of global competencies and entrepreneurship skills. This also includes developing the soft skills that will be crucial to meeting the changing nature of the economy and labor market demands.” (Emphasis added)

24. “We affirm that a globalized world requires advanced and strong systems to develop workforces with global competencies. Increased international cooperation is needed to promote globalization that genuinely responds to the requirements and challenges of today's economy. Therefore we need to develop international cooperation programs and strategic partnerships that provide for the acquisition and transfer of knowledge by all populations through education and training. This will provide economies with the capacity to increase their competitiveness and improve youth employability.”

ALD 2016: “We encourage our economies to collaborate on improving education in the Asia-Pacific region under the principles established in the APEC Education Strategy. This strategy outlines a path for achieving a strong and cohesive APEC education community characterized by inclusive and quality education that supports sustainable economic growth and social well-being, enhances competencies, accelerates innovation and increases employability.”

To implement and monitor the effectiveness of the new strategic document, member economies undertook the development of the Action Plan for the APEC Education Strategy, again through a series of the workshops and intersessional collaboration. The current components of this plan, summarized here, provide context and direction for such placements:

The Action Plan recognized the importance of global competencies and talents for economic success in the regional and global marketplace, but in moving the GC agenda

forward, its presence and ramifications must be reflected across the Action Plan so the project team took advantage of the unique group of stakeholders at the APEC Workshop on Global Competencies and Economic Integration to provide useful input for the EDNET to consider. Participants at the August 2017 Workshop in Monterey, California, USA reviewed the most current draft of the APEC Education Strategy and the Action Plan and worked in small groups and in plenary sessions to develop suggested modifications to the Action Plan that would emphasize and promote GC. Each modification is presented with the one of the five recommendations above to which it most closely relates.

Under 3.1 – Enhancing Competencies, Action 1: Enhancement of Quality Assurance Systems, Qualifications Frameworks and Skills Recognition, the Workshop participants inserted the language in emphasis:

“Economies will strive to share knowledge *and practices* on occupational standards and *to enhance global competency* to meet the needs of the regional labour market and to support labour mobility and mobility of goods, services and trade.”, inserting the highlighted texts. (related to Recommendation 2)

Under 3.1 – Enhancing Competencies, Action 2: Promotion of Cross-Border Education, Academic Mobility and Individual Pathways within and across Education Levels, the Workshop participants inserted the language in emphasis:

“Economies will promote academic exchanges for teachers and students through *in-person and virtual exchanges*, dual and joint degree programs, sandwich programs, immersion and short- *and long-term* study abroad programs and internships.”
(Recommendation 3)

Under 3.1 – Enhancing Competencies, Action 2: Promotion of Cross-Border Education, Academic Mobility and Individual Pathways within and across Education Levels, the Workshop participants inserted a new item:

“Economies will promote public-private partnerships to improve integration of global competency into their respective domestic policies.” (Recommendation 4)

Under 3.2 Accelerating Innovation, Action 1: Improving the use of Educational and Technological Capabilities in Teaching and Learning Processes, the Workshop inserted the language in emphasis:

“Economies will support frameworks, research and best practices pertaining to the innovative *gathering, analyzing, selecting, and applying* of information and *advanced* technologies to equip APEC citizens *with global competency, knowledge, and skills for the future, including soft skills.*” (Recommendation 2)

Under 3.2 Accelerating Innovation, Action 1: Improving the use of Educational and Technological Capabilities in Teaching and Learning Processes, the Workshop inserted a new item:

“Acknowledging a significant correlation between multilingualism and creative problem-solving abilities in multicultural settings and diverse working environment, economies will support strengthened language education as a means to enhance global competency.” (Recommendation 3)

7. Conclusion

The APEC Global Competencies and Economic Integration project brought together many skilled experts and important stakeholders from across the Asia-Pacific region and considered the past, present, and future of skills and talents in the modern global workforce. The survey of global talent allowed project researchers to compare data from the United States to other participating economies, highlighting many interesting differences and similarities in how employers view and value global competencies across the region, and the participants to the APEC Workshop on Global Competencies and Economic Integration made substantial contributions to the EDNET’s common understanding and the Action Plan for the APEC Education Strategy. And finally, the recommendations within this report will serve as a guide for APEC economies or our global neighbors who want to enhance global competencies within their educational system and improve their ability to compete in a changing globalized world.

Annex A

Excerpts from the Workshop Report of the APEC Workshop on Global Competencies and Economic Integration

I. Overview

The APEC Workshop on Global Competencies and Economic Integration was held 7-8 August 2017 in Monterey, California, USA under the APEC Global Competencies and Economic Integration project (Project HRD-02-2015). The project team includes the project sponsors at the United States Department of Education, the project study leads at the Joint National Committee for Languages-National Council for Languages and International Studies and their research partners, and the project overseers and technical and logistical support staff at Leed Management Consulting, Inc.

II. Workshop Preparation and Implementation

Project staff originally planned to hold the APEC Workshop on Global Competencies and Economic Integration on the margins of the 2nd annual EDNET Meeting, held 13 May 2017 in Ha Noi, Viet Nam, but scheduling challenges required the event to be postponed. Working with U.S. Department of Education staff and APEC and HRDWG officials, the team rescheduled for 7-8 August 2017 in Monterey, California, USA, hosted by the prestigious Middlebury Institute for International Studies at Monterey.

Project staff developed a draft agenda, administrative circular, and letter of invitation, which were disseminated to HRDWG delegates on 29 June 2017. As registrations and notes of interest arrived, project staff fielded queries and shared information for registered workshop participants with the APEC Secretariat on a regular basis. Project staff worked with Secretariat staff and participants to facilitate APEC-funded support for participants from seven travel-eligible economies and to secure HRDWG approval for non-member participants.

The Workshop was held without issue on 7-8 August 2017, attended by eighteen participants from nine member economies, including representatives from government, academia, and the nonprofit and private sectors. Evaluation forms were collected onsite and analysis shows unanimously positive feedback. The project overseer received attendance confirmation signatures from all APEC-funded travelers and submitted the PO certification form on 8 August 2017.

III. **Outputs and outcomes**

Participants to the APEC Workshop on Global Competencies and Economic Integration met with the goal of developing policy recommendations to improve the articulation of global talent between the employment and educational sectors in APEC. Participants reviewed work of the project to date and heard from experts in the field of global competencies and global talent discuss innovative research and best practices. Delegates from the participating member economies shared insights into how global competencies inform their economy-level programs and initiatives. Participants reached a consensus working definition of “global competencies” for common use across EDNET and their discussions will contribute to the project’s final report with policy recommendations to address global talent gaps.

Workshop participants also reviewed the most current draft of the Action Plan of the APEC Education Strategy, and worked in small groups and as a whole to develop suggested modifications that would emphasize and promote global competencies. Many modifications include insertions made to various items of the Action Plan’s Instruments and Tools section (see section 6 of final report).

Annex B

Research on Global Competencies and Economic Growth

A. *Enhanced Human Capital: Educational Outcomes and Economic Growth (GDP)*

The relationship of quality education to economic growth as evidenced by GDP is persuasively laid out in a series of studies by Eric A. Hanushek and colleagues:

This book advances the simple argument that long-run economic growth is overwhelmingly a function of the cognitive skills of the population, or the “knowledge capital” of a nation. This hypothesis is subjected to rigorous economic and empirical analysis including extensive consideration of causal interpretations. The main results are remarkably robust, and equally applicable to developing and developed countries. Past empirical analysis and policy development based on school attainment of a nation’s population prove fragile, misleading, and rightfully questionable. For example, two largely unsolved historical mysteries – the “Latin American growth puzzle” and the “East Asian miracle” – are completely explained by consideration of knowledge capital. The central importance of cognitive skills allows one to calculate the economic benefits of improved skills for individual countries of the world. The historical consequences of increased knowledge capital prove to be huge – multiples of GDP for achievable improvements in schools. Turning to the policy implications, the natural focus of attention is improving a country’s schools. Existing research evidence suggests the value of an education system that develops effective accountability, promotes choice and competition, and provides direct rewards for good performance. While many school reforms are politically difficult, this analysis underscores the substantial costs of the status quo. (Eric A. Hanushek, Ludger Woessmann. 2015. *The Knowledge Capital of Nations: Education and the Economics of Growth*. Cambridge, MA: MIT Press)

Cognitive skills (critical and creative thinking) as manifested in international test scores, such as PISA are “causal” not “correlational” to GDP as indicator of growth.

“One of the clues in support of the conclusion that education does contribute to growth is that countries with higher levels of economic growth

have labor forces with higher levels of formal schooling. Beyond such a macroeconomic approach to the relation between education and economic growth, the new growth theories assert that developing nations have a better chance of catching up with more advanced economies when they have a stock of labor with the necessary skills to develop new technologies themselves or to adopt and use foreign technology. In such models, more education in the labor force increases output in two ways: education adds skills to labor, increasing the capacity of labor to produce more output; and it increases the worker's capacity to innovate (learn new ways of using existing technology and creating new technology) in ways that increase his or her own productivity and the productivity of other workers. The first of these emphasizes the human capital aspect of education (that is, that education improves the quality of labor as a factor of production and permits technological development); the second places human capital at the core of economic growth and asserts that the externalities generated by human capital are the source of self-sustaining economic growth—that human capital not only produces higher productivity for more educated workers but for most other labor as well.”

“Economic development is a matter of growth, and growth depends on the productivity enhancing skills of a country's population. Fortunately, such skills can now be captured quite well by scores on international mathematics and science tests. The best way in which skills can be improved will vary according to a country's specific situation. Successful policies are likely to depend on both local capacity and local demands. Nevertheless, from a policy viewpoint, improving school quality is a clear avenue to achieve improved long-term growth. The unifying theme for policymakers to consider is to focus on the outcomes for individuals in terms of skills and not just the inputs such as the level of education in terms of years of schooling. Improving the *quality* of schools is the development imperative.” (Hanushek 2017. “For long-term economic growth, only skills matter”)

B. Cognitive Advantages of Bilingualism

Research of the last decade has made clear the cognitive benefits of bilingualism:

“Robust working (WM) effects [of bilingualism] have been found across a range of complex cognitive processes, including reasoning, problem solving, planning, abstraction, mental arithmetic, and first language (L1) comprehension.” (Linck et al. 2014).

...the ability to juggle all the languages in play creates consequences more generally for bilinguals and multilinguals that enhance the ability to ignore irrelevant information, to switch from one task to another, and to resolve conflict across different alternatives. (Kroll & Dussias, 2015).

“The main objective of the study was to determine whether the advantages previously reported for fully bilingual children could be detected in children who were learning another language in an educational immersion program. The results on that point are positive: one task (Wug) was performed better by the immersion children at both levels, another task (sentence judgment) was performed better by immersion children with much greater advantages for the older and more experienced children, and the third task (verbal fluency) began as a problem for the children in the immersion program but the older children regained ground and performed equivalently to monolingual children. Thus, all three predicted statistical patterns were found, indicating the importance of all three factors: grade, program, and task demands. The results show a continuum in which more experience in using two languages is associated with greater benefit and greater approximation to the pattern reported for bilingualism. It is an evolving system in which experience gradually and continually modifies ability. Language-education programs are not only teaching children language but they are also making them bilingual. The road to bilingualism is incremental, and so are the accrued advantages.” (Bialystok et al., 2012).

The second social implication concerns how findings from bilingualism research are reflected in educational policy. Consider for example Canada and Germany. In Canada, early research in dual-language immersion programs made it possible to assess the impact of bilingualism in educational contexts, research that remains relevant in lending scientific credibility to the success of such educational programs. One may presume that this educational approach was driven by the need to positively endorse Canada’s national identity as a bilingual nation, but that was not and is not the case as official bilingualism in Canada has always been controversial and contentious. Nonetheless, this educational initiative sends a clear signal to Canada’s immigrant population that bilingualism is viewed as an asset. Germany, in contrast, has only recently begun to implement dual-language immersion programs and, indirectly, realized the potential inherent in its immigrant population and their

additional languages. Gebauer et al. (2013), for example, report positive cross-language transfer of reading skills in children's L2 English to their L1 German. The children had been enrolled in English partial immersion programs in Germany, programs that offer children more second language input than regular second language classes in German primary schools (for an overview of various immersion programs, see Baker 2011). As such, these findings indicate that fostering and supporting a second language from an early age can have effects above and beyond those illustrated in the above sections, effects that may be accrued irrespective of which L2 a child is acquiring. Finally, recent research has also begun to focus on the extent and length of bilingual exposure needed for changes associated with bilingualism to emerge in children (see Barac and Bialystok 2012; Bialystok and Barac 2012; Bialystok et al. 2012, Bialystok & Poarch, 2014).

According to the recent report from the American Councils/RAND Study of Dual Language Immersion in Portland, Oregon Public Schools, students assigned to immersion:

- Outperformed their peers in English reading in grades 5 and 8, with no detriment to math or science skills
- Had lower ELL classification rates by 6th grade
- Reached intermediate levels of partner-language proficiency by grade 8
- No evidence that peer, teacher, or class size characteristics drive immersion effects (Source: Steele et al., in press.)

Data from studies in 'Bilingual Hispanics'

As compared to monolingual English speakers: data show that "bilingual Hispanics": graduate from high school more, matriculate in and, graduate from, college more, and get more and better jobs. (Callahan & Gándara, 2014).

C. GC and Employment

In addition to the data supplied by the APEC survey, multiple recent studies in the US and the EU indicate demand for language and concomitant soft skills among employers. For example, the EU examined international experience as a factor in recruitment:

"While 64% of employers consider an international experience as important for recruitment, on average 92% are looking for transversal skills

such as openness to and curiosity about new challenges, problem-solving and decision-making skills, confidence, tolerance towards other personal values and behaviours.”

“While 81% of Erasmus students perceive an improvement in their transversal skills when they come back, 52% show higher memo© factors. In all cases, they consider the improvement of skills to be greater than they expected before going abroad.” (European Union, 2014)

In the US, some 11% of employers seek recent college graduates with language skills, and another 45% give advantages to candidates with overseas experience or language skills. (Damari et al., 2017)