

JOINT STATEMENT FROM THE
3rd APEC EDUCATION MINISTERIAL MEETING
"Skills for the Coming Challenges"
APRIL 29–30, 2004
Santiago, CHILE

I. Introduction

1. We, the Education Ministers representing APEC's 21 Member Economies, convened our Third Meeting in Santiago, Chile, on April 29-30, 2004, under the Chairmanship of H.E. Sergio Bitar, Minister of Education, Chile.

2. We met under the policy theme of "Skills for the Coming Challenges", to foster linkages and to strengthen collaborative initiatives in the field of education. We agreed to promote equitable and sound opportunities for our communities to make the most of their potential to achieve our goals of greater economic integration, openness, and prosperity for our peoples.

II. Recent Developments in the APEC Region

3. Since we last met in Singapore, on April 7, 2000, APEC's Economic Leaders have met on four occasions and the overall APEC vision remains the same: *Achieving stability, security, and prosperity for our people*. Through the Human Resources Development Working Group (HRDWG), the Education Network (EDNET) has been able to implement initiatives endorsed by the Senior Officials Meeting (SOM) in February 2003 and in Part II of the Osaka Action Plan (OAA), including: Quality basic education, Lifelong learning, Improved curricula, Teaching methods and instructional materials for the 21st century, Enhanced quality of the labor force and mobility of qualified persons.

4. We recognized the challenge in balancing the economic goals of education and training, through the preparation of a skilled labor force to stimulate sustainable economic growth, and the non-economic goals including personal development and fostering civic education and cultural identity, within the APEC Region.

5. We renewed our commitment to support EDNET within HRDWG and recognized that it is a driving force that can add positive value in collaborative initiatives in the field of education-related issues in the APEC Region. Work that is being accomplished through EDNET can bring forward better education and training opportunities to develop the needed skills that will allow our communities to face the challenges of the 21st century.

6. We acknowledged the accomplishments of EDNET towards the goals we outlined in 2000 and note in reviewing those strategic areas that were prioritized at our Second APEC Education Ministers' Meeting in Singapore, we have been able to successfully complete joint initiatives in the field of Information Technology; Teacher Preparation; Education Management and the enhancement of cooperation as well as the exchange of experts and expertise. A list of completed and current EDNET projects is attached as Annex A.

7. We observed how EDNET has matured as an organization since 2000. Participation has continued to grow; the organization has gained greater focus; strategic alliances with the private sector, other international organizations in the region and across APEC fora have been made; and EDNET has made progress towards the Leaders' priority of building knowledge-based society.

8. We acknowledged that EDNET organized a successful summit of researchers and policy-makers in Beijing in January 2004 in preparation for this 3rd AEMM to ensure recommendations reflect the most up-to-date research and policy trends. In this regard, we noted the generic signals that emerged from studying the four theme reports prepared for this meeting. These signals should guide our officials as they continue to work through EDNET: ensuring gender analysis and perspectives, encouraging a mix of actors, overcoming resource constraints, emphasizing professional training, encouraging community and parental support, and improving transparency and sharing assessments.

III. Facing Educational Challenges with Collaborative Strategies

9. Building upon the successful work to date, we defined the following four priority areas for future network activities: Teaching English and Other Foreign Languages; Stimulating Learning in Mathematics and Science; Using Technology for Teaching and Learning; and Governance and Systemic Reform in Education.

10. The wealth of knowledge and experience that exists in the APEC Region in the four areas was demonstrated through the discussions and deliberations in Santiago. This was specially demonstrated through the existence of the Knowledge Bank of Education Policy and Practices, (www.apecneted.org/knowledgebank), an APEC site that is currently available publicly through the Asia Pacific Network for Education Web Portal (www.apecneted.org) — a joint initiative of APEC Cyber Education Cooperation (ACEC), the APEC Education Foundation (AEF), and the APEC Education Network (APEC EDNET). To share the benefits of the Knowledge Bank, the use of languages other than English is also encouraged.

11. A number of challenges emerged under the four key themes discussed at the meeting:

- ♦ Improving the learning of English and other foreign languages at the school level is essential to ensure long-term impact. This will be achieved by setting and measuring clear standards and implementing context-relevant strategies for professional development of teachers. However, the importance of learning of English and other foreign languages is not limited to traditional students; it extends to workers, small business entrepreneurs, women, and disadvantaged groups, to enable them to interact successfully in a globalized world.
- ♦ Curriculum reform, notably in Languages, the Sciences and Mathematics, must be considered in the context of the community as a whole to overcome the weaknesses in a given system, while preserving the existing strengths.
- ♦ While basic instruction in ICT is important to learn, ICT's strength appears to be in supporting other subjects. More research is needed to elucidate the factors affecting learning in this context.
- ♦ Establishing strong pedagogical foundations for the use of ICT in education will facilitate the integration of ICT into the school curriculum. Sustainable communities of practice among teachers, students, researchers and other stakeholders will allow us to leverage on each other's experience, knowledge and research findings on innovative uses of ICT in learning and teaching.
- ♦ Economies need effective governance including transparent, accountable, regulatory, accreditation, and quality assurance systems, and also policy and program delivery in order to provide the best educational outcomes. Better connections between researchers and policy makers will support the successful application of governance models, school and curriculum reforms within economies'

education systems. More comprehensive, longitudinal studies are needed in order to obtain helpful data for decision-making.

IV. Putting Words into Action

12. We have therefore instructed our senior officials to evaluate and prioritize the recommendations highlighted in each of the four priority areas in Annex B.

For a successful collaboration, EDNET will use the following guidelines:

- ♦ Undertaking joint research projects addressing fundamental cognitive, empirical and policy matters in the four main priority areas.
- ♦ Identifying and sharing of promising practices on the four priority areas through on-site and online networking communities to connect researchers, students, teachers, children, adult learners and common interest groups.
- ♦ Promoting student and professional mobility as well as joint professional development resources and exchange opportunities, to allow for extended use of limited resources on the four priority areas.

13. We requested that EDNET give careful attention to identifying specific mechanisms required to effectively implement our prioritized recommendations. This includes investigating the rich internal resources available in each of our economies, including our research organizations and universities and building on the activities already taking place in our Ministries to achieve these shared goals.

14. A point stressed by many economies was the need to capitalize on and add value to work related to education being done by other international groups, such as OECD, OAS, SEAMEO and UNESCO. A special concern was the economic pressure being felt in each economy and, therefore, the need to focus limited resources on high quality projects and partnerships.

15. We requested that EDNET work with other relevant APEC Fora, including APEC Business Advisory Council (ABAC), to develop a Strategic Plan for English and Other Languages in the APEC Region that would take into account each economy's context. We encourage our counterparts responsible for Trade, SMEs and Tourism, to instruct their senior officials so as to collectively develop the Plan for the APEC Region, taking on board the strengths that these sectors can offer for the positive, long-term development of this initiative, with an aim of presenting a progress report to APEC Economic Leaders when they meet in Santiago on November 20-21, 2004.

16. We requested that EDNET, through the HRD Working Group, report on conclusions reached at the 3rd Education Ministerial Meeting at the next meeting of the APEC Economic Leaders in Santiago, Chile on November 20-21, 2004, and provide the Ministers with an Annual Report of Progress towards the goals we have established.

LIST OF PROJECTS BY PRIORITY AREA ACCORDING TO THE 2ND AEMM

(Singapore, April 2000)

I. Using Information Technology

Current

- ACEC including the Asia Pacific Network for Education Web Portal and the Knowledge Bank of Education Policy and Practice - (U.S., Korea, Hong Kong and New Zealand) - www.apecneted.org and www.apecneted.org/knowledgebank
- APEC Cyber Academy (Chinese Taipei) - <http://linc.hinet.net/apec>
- eLearning Strategic Plan (Chinese Taipei and the U.S.) – <http://apec.linc.hinet.net/>

Completed

- APEC Links (Singapore)
- APEC Education Exchange Programme (Singapore)
- Integration of Information and Communications Technologies Through Teacher Professional Development and Pre-service Teacher Training (Canada)

II. Improving Teaching Systems

Current

- Best Practices in Math and Science Seminars – Elementary and Secondary School Levels (Malaysia)

Completed

- Vocational Teacher Standards and the Formulating Method (China)
- Best Practice Workshop on School-to-work Transitions in APEC Member Economies for Youth at Greatest Risk of Unemployment (Canada)

III. Reforming Education Management

Current

- Best Practice in Governance Case Studies (Australia)
- Best Practices for Promoting Life Long Learning (Chinese Taipei)

Completed

- Improving Institutional Capacity in Joint Schools (China)
- Achieving High Performing Schools (China and the U.S.)

IV. Promoting Cooperation and the Exchange of People and Expertise

Current

- Learning About Each Other (U.S. and Chinese Taipei)
- APEC Learning Community Builders – ALCoB (Korea) <http://alcob.com/new/index.html>
- University Mobility in Asia and the Pacific – UMAP (Australia)
- APEC Education Hubs (Singapore)

Completed

- APEC Sister Schools Project (Thailand)
- Towards Mutual Recognition of Qualifications for Stage 3- Engineering (Australia)
- Improving the Understanding of Culture in APEC – We Are APEC (Australia)
- Promoting New Exchanges in Higher Education for the 21st Century (Japan)
- Exchange of Education Professionals Among APEC Member Economies (Korea)
- Cross-Cultural Comparison on Open-Learning System in APEC Member Economies (Korea)
- KDI School as an APEC Education Hub (Korea)
- APEC Youth Networking: Youth Preparation for the APEC Society in the Next Millennium (Thailand)
- Modalities of University-Industry Cooperation in the APEC Region (Thailand)

**Recommendations submitted by each sub theme paper at the 3rd AEMM
(Santiago, April 2004)**

English and other foreign languages

1. Curriculum & Standards

It is important to achieve a balance between existing programs and emerging needs. Key priority should be given to develop clear standards and testing system to support teacher language accreditation, and to define clear standards for student learning and appropriate assessment systems.

2. Exchange & Development

It is recommended to build on strengths of each economy through networking and collaborative initiatives such as the following:

- Compile a resource inventory including foreign/second language reference materials, resources and teacher exchange information and on-line training programs linked to EDNET Knowledge Bank.
- Link APEC Foreign Language Teachers with internationally recognized language teaching association, such as IATEFL or TESOL, to organize English language teachers' workshops, symposium and other training programs relevant to foreign language teaching, research and publication under the auspices of APEC EDNET (as endorsed by APEC HRDWG)
- Support APEC-wide events to create a "language star culture" that lauds achievement in foreign language (such as offering rewards, sponsoring contests, debates, etc.)
- Promote e-learning strategies for language teachers' professional development and creativity in classroom instruction
- Create network of returning graduate students and exchange of foreign language educators and students within APEC economies.

3. Research:

Cooperate in relevant research projects, with clear identification of collaborative roles. The following initiatives are recommended:

- Study use of foreign language e-language learning, web sites and distance education programs to compensate for limited number of teachers and resources
- Assessment of communication skills, especially in large classes, and the possibility of collaborative assessment tools, along with associated impact studies
- Development of a collaborative foreign language teachers' standards assessment and accreditation program, along with associated impact studies

4. Resource Leverage

Make the best use of resources available for research, networking and collaborative initiatives by:

- Implementing the Knowledge Bank

Math and Science Instruction

1. Build an online professional development network. Online professional development can be used to enhance teachers' knowledge about mathematics and science. For example, teachers in more developed economies could share their knowledge of how to teach science or how to use ICT to improve instruction with teachers in less developed economies. If done well, online professional development could be as effective as and more cost effective than face-to-face professional development. APEC should explore opportunities for providing online professional development in mathematics and science, and in foreign languages and ICT.
2. Use all opportunities to share knowledge. APEC can create opportunities to share information about mathematics and science education. APEC should sponsor a seminar to discuss case studies: suggested seminar themes might include effective practices for teaching and assessing 21st Century skills and effective practices for training mathematics and science teachers. After the seminar, findings could be even more widely disseminated through the *APEC Network for Education Knowledge Bank*. The Knowledge Bank is a powerful tool that can be used by APEC economies to share information on policies, research, and effective practices. The Knowledge Bank could also house an online bank of assessment questions that measure students' mathematics and science skills in a variety of different formats (multiple choice, short answer, open-ended), including assessments at key grades and college entrance exams.
3. Research how best to integrate instruction in science, technology, and mathematics. Technology is more available than ever in APEC economies. Consequently, it is important to determine how this technology can be used to change instructional techniques and improve student achievement. APEC should encourage research to provide educators with evidence-based methods for integrating ICT with mathematics and science instruction. Without such research, ineffective instructional practices could be inadvertently promoted.
4. Promote the use of evidence-based educational policies and practices throughout APEC. Using the *APEC Network for Education Knowledge Bank*, economies will be able to share information on *evidence-based* best practices in science and mathematics education with one another. APEC is moving toward a research-based focus in its education work, reaching agreement on what constitutes a promising practice and what constitutes an evidence-based practice. Economies should identify their promising practices and rigorously evaluate them to see if they are evidence-based. They should then share proven methods with the other APEC economies.
5. Build on existing cognitive research. APEC should work to determine how recent brain research could be used in teaching mathematics and science concepts, to determine appropriate sequencing of concepts, and to help students of different ages retain mathematical and science concepts. APEC or APEC members should also consider ways to use information collected in UNESCO and OECD brain research projects.

Using ICT for Teaching and Learning

1. Establishing communities of practice, both on line and on site to share knowledge among students, teachers, researchers, parents, policy makers and other stakeholders among APEC communities.
2. Collaborate on research and development (R&D). APEC economies can share and collaborate with one another on how technology tools can yield high pedagogical impact with low investment, and how such tools can be widely accessible and widely adopted, especially in regions where the digital divide in schools is an issue.
3. Towards the Integration of ICT Literacy into Teaching and Learning. In the long run it is recommended that a holistic approach can be adopted in assimilating ICT into all aspects of teaching and learning to promote ICT literacy. Hence, the focus for future EDNET discussions and projects should be on close integration of the ICT sub theme into the other sub themes, namely English and Foreign Language, Mathematics and Science, and Governance.

Governance and Systemic Reform in Education

1. To have effective governance including transparent, accountable, regulatory, accreditation and quality assurance systems and also policy and program delivery.

These will depend on the economies' political and cultural context, level of economic development and international engagement. Information can be gained from other economies including outside the region.

2. To build the capacity of individuals and at the local and central levels of government;

Decentralization and other reforms cannot occur without appropriate resource and skills shifts and capacity at local level. There is a need to balance local autonomy with national goals and aims.

3. To strengthen ties between schools/education training institutions and local communities;

This encompasses moves to greater school based management systems (often including the building of social capital in schools), increased accountability of schools and greater community involvement.

4. Higher Education Reform. To share best practices including quality assurance systems and international benchmarking.

**THE APEC EDUCATION NETWORK'S ACCOMPLISHMENTS
2000 THROUGH 2004**

GENERAL PROGRESS

Support Leaders Priority of a Knowledge-Based Society

- There was an obvious movement by the EDNET members toward a research-based agenda from 2000-2004 for all EDNET business
- This movement toward a research-based agenda is best exemplified by the participation of 18 out of 21 economies at the APEC Education Summit, "Striking Balance from East and West."
- In addition, there was a huge response to the policy surveys developed for the 3rdAEMM in each of the four priority areas: 16 in math, 15 in English, 11 number in IT, 13 number in governance. This is in stark contrast to a total of 7 surveys submitted in IT for the 2000 Ministerial.
- EDNET members agreed upon an adopted a common core of definitions for promising practice and evidence-based practice.
- The Knowledge Bank provides the opportunity to access research-based information in each of the priority areas by economy, as well as topic area

Growing Participation

- EDNET projects represented 50% of all HRDWG funded projects over the last four years.
- EDNET participation is broadening to offices beyond MOEs' International Cooperation offices to frontline developers and implementers of policy reform and research within the Ministries.

Increased Focus

- The group has decisively moved beyond general cooperation to cooperation in key areas of common concern (particularly improving teaching in key content areas – Math and Science, Language Instruction).
- There is one gateway into all APEC education projects – across Fora - via the portal: Knowledge Bank of Policy and Practices.

Strategic Cooperation

- Together: Economies chaired each of the four sub-themes at the Summit and have served as a management team for the Ministerial
- With Foundations: AEF on ACEC, Hewlett Foundation and Sun Wah
- With each other: Building on bi-national partnerships formed out of APEC cooperation (e.g., e-language)
- With the research community: Economy researchers able to talk with one another via email in their own language and have it translated via the Knowledge Bank.