Assessment of Education Colleges Learning Outcomes in Abu Dhabi

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Outline

UAE Higher Education system

ADEC Mission, Vision and AHELO

AECLO- Why, and how

Methodology

Findings

Limitation and conclusion

Background- Education in the UAE and Emirate of Abu Dhabi

Education shall be a fundamental factor for the progress of Society in the UAE

- About the UAE, and Emirate of Abu Dhabi

- In 1962 UAE (then Trucial States) had 20 schools, by 1971 when the federation of UAE was formed – 74 schools.

- Strong collaboration between Abu Dhabi Education council (ADEC) and federal bodies (eg: UAE Ministry of Education)

- HEIs in the Emirate of Abu Dhabi

  - Public HEIs & Partner Universities

  - Federal HEIs

  -Private HEIs and Branch campuses

Background on AHELO (Assessment of Higher Education Learning Outcome)

Background	The OECD's Directorate for Education has ample experience in assessing learning outcomes such as: ▪ The Programme for International Student Assessment (PISA) testing the knowledge and skills of 15 year olds ▪ The Programme for International Assessment of Adult Competencies (PIAAC). ▪ Assessment of Higher Education Learning Outcomes (AHELO) is the only tool available to compare the quality of teaching and learning in institutions at the international level.

Abu Dhabi Higher Education system-
Rationale for AHELO

- Expansion of higher education systems
- Wider participation
- Emergence of new players
- More diverse profiles of institutions, programs and students
- Continuing advancement and rapid integration of new technology Increasing pressures on costs and new modes of financing
- Growing emphasis on market forces:
- New modes of governance stressing performance, quality and accountability

AD Plan, ADEC vision and ADEC HE strategic Priorities

Abu Dhabi Plan	**A promising and educated generation that contributes to the nation and community**

ADEC Vision	**Recognized as a world class education system that supports all learners in reaching their full potential to compete in the global market**

Abu Dhabi aims to develop a quality education system that equips learners with the skills and knowledge needed to drive the Emirate's socio-economic progress (ADEC Strategic Plan 2009-2019)

Kindergarten → **P-12** → **Higher Education**
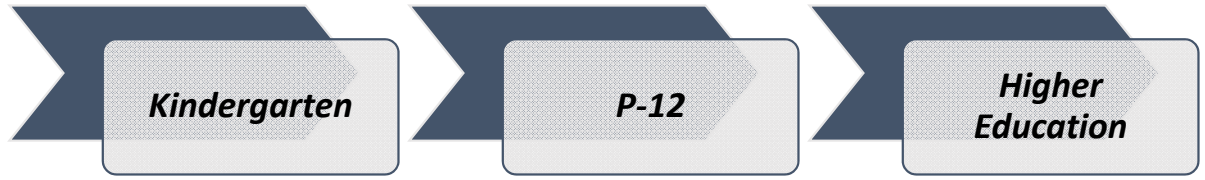
PISA; TIMMS

A key higher Education sector project
Assessment of Learning outcome in various specialty areas

AHELO at a Glance

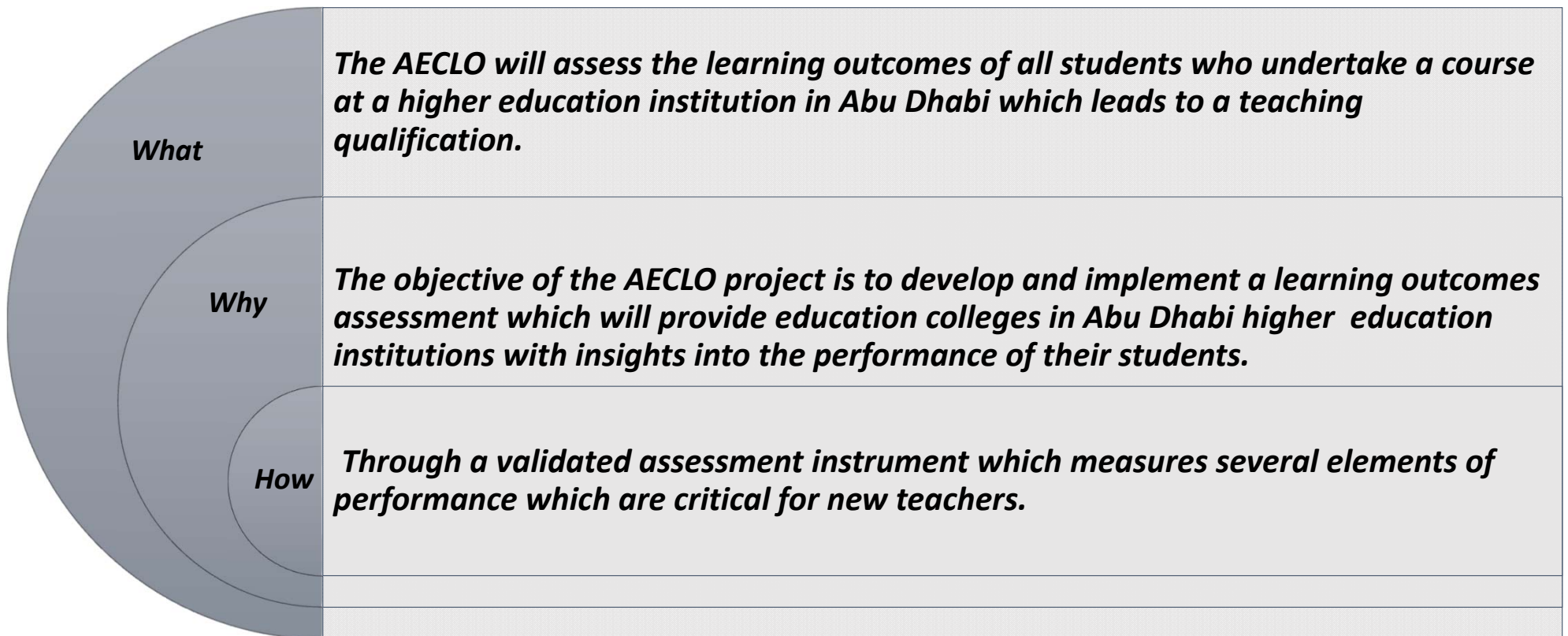|	
What?	A test for higher education students to assess higher education learning outcomes to be internationally comparable, similar to PISA for basic education.
Why?	No reliable international data exists on the outcomes of learning: the few studies that do exist are nationally focused.
Who?	The OECD, an international consortium of experts and 16 countries from all over the world.
Results	Anonymous comparable data at the level of institutions. The tests will provide actual data on the quality of learning and its relevance to the labour market.

What is Abu Dhabi Education Colleges' Learning Outcomes (AECLO)?

The AECLO project is an important initiative in elevating the quality of teacher training in Abu Dhabi. A key element of ADEC's 10-Year Strategic is to enhance the capabilities of school teachers

What

The AECLO will assess the learning outcomes of all students who undertake a course at a higher education institution in Abu Dhabi which leads to a teaching qualification.

Why

The objective of the AECLO project is to develop and implement a learning outcomes assessment which will provide education colleges in Abu Dhabi higher education institutions with insights into the performance of their students.

How

Through a validated assessment instrument which measures several elements of performance which are critical for new teachers.

Abu Dhabi Education Colleges' Learning Outcomes (AECLO)
Collaborators: Australian Council for Educational Research (ACER)
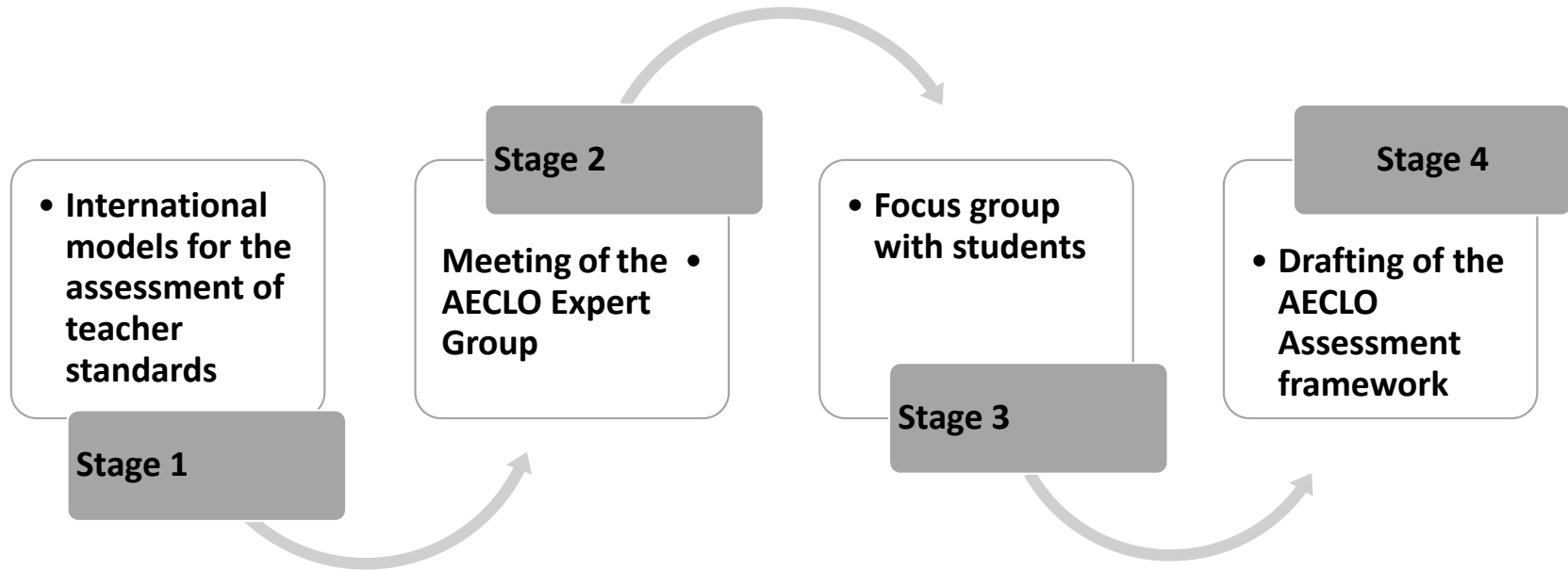
Benefits to ADEC:

- Support ADEC's strategy of enhancing the capabilities of school teachers.

Benefits to the participating Education colleges:

- AECLO Assessment provides institutions with evidence-based insights to underpin improvements in the way in which education students are prepared for their teaching careers.
- Gain insights into how the performance of their own final-year education students compares to the performance of final-year students across all education colleges in Abu Dhabi.
- Provides the opportunity for colleagues across the education sector to collaborate to determine the key skills and knowledge required by graduating education students
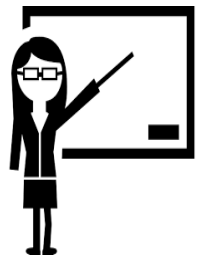
AECLO Framework developed in a series of stages

Stage 1
- International models for the assessment of teacher standards

Stage 2
- Meeting of the AECLO Expert Group

Stage 3
- Focus group with students

Stage 4
- Drafting of the AECLO Assessment framework
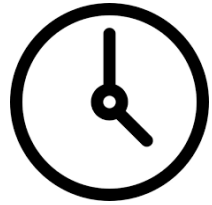
Parameters of The AECLO Assessment Instrument

SHOULD include real world scenarios

SHOULD have assessed items which called on students to demonstrate their ability to solve problems and/or identify appropriate actions

SHOULD be delivered on a computer in both English and Arabic

SHOULD take between 60-90 minutes to complete

Assessment Framework: The AECLO framework was developed in a series of stages- STAGE 2

Stage 2: Meeting of the AECLO Expert Group

AECLO Expert Group meeting aimed to establish parameters for the AECLO assessment instrument. The meeting was divided into three stages.

The first stage of the AECLO Expert Group meeting focused on elements of performance which are critical for new teachers but with which they frequently struggled.

Focus Points
- *Classroom management*
- *Practical implementation of pedagogy*
- *Self -direction and leadership in the classroom*
- *Implementation of curriculum*
- *Application of research skills in the classroom*
- *Questioning strategies*
- *Communication and interaction with students & colleagues*
- *Implementation and integration of technology (ICT) in classrooms*
- *Critical thinking and problem solving*
- *Knowledge of assessment*
- *Evaluation of individual needs of each student*
- *Generic skills*
- *Tracking student improvement*
- *Language skills (Arabic and English)*
- *Dealing with special-needs children*

The second stage of the meeting focused on the elements which should be included in the AECLO assessment.

Focus Points
- *Content knowledge*
- *Application of curriculum content*
- *Lesson planning*
- *Assessment of student performance*
- *Interacting and communicating in a range of circumstances*
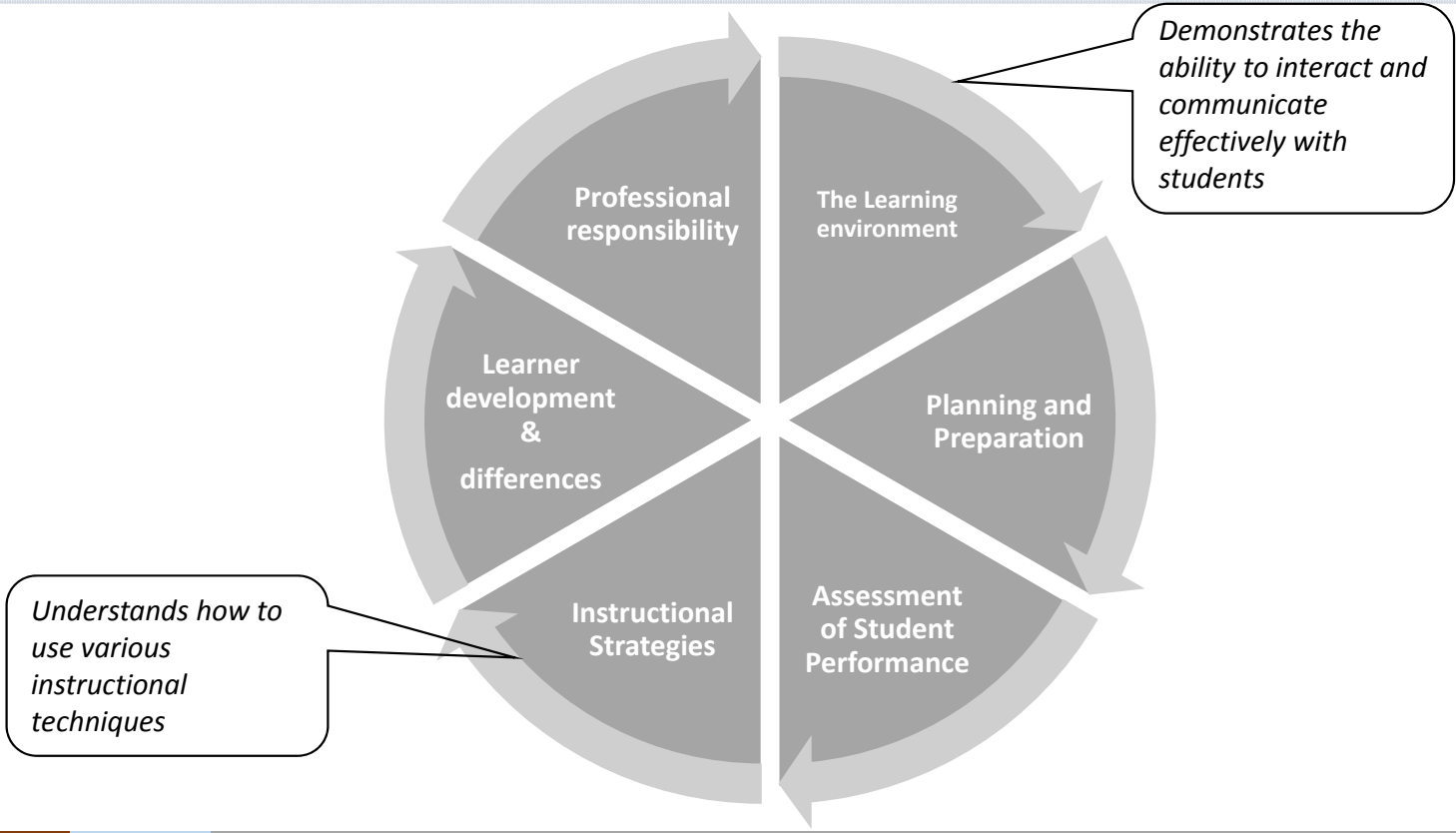- *Self-understanding and ongoing professional development*

The third stage of the meeting focused on the type of tasks which should be included in the AECLO assessment.

Focus Points
- *Familiar contexts*
- *Culturally appropriate content*
- *Good explanation of context in stimulus*
- *Familiarity with question types*
- *Comparability of different language versions*
- *Checking comprehension of stimulus materials*
- *Language should be simple and appropriate to non-native speakers*
- *Any original texts should be in Arabic and translated into English (rather than vice versa)*
- *Avoid multiple testing points and in-built tricks*
- *Ensure that students understand the low stakes (for individuals) of assessment*

Assessment Framework has been divided into 6 domains/categories. These categories along with their sub-categories form a framework against which assessment materials can be mapped.

Demonstrates the ability to interact and communicate effectively with students

Professional responsibility

The Learning environment

Learner development & differences

Planning and Preparation

Understands how to use various instructional techniques

Instructional Strategies

Assessment of Student Performance

Assessment Framework has been divided into 6 domains/categories. These categories along with their sub-categories form a framework against which assessment materials can be mapped.

Assessment Framework Categories

The learning environment	Planning and preparation	Assessment of student performance	Instructional strategies	Learner development and differences	Professional responsibility
• Demonstrates the ability to interact and communicate effectively with students • Understands how to establish a culture for learning • Understands how to manage classroom procedures • Understands how to organise physical space • Understands how to manage student behaviour • Understands how to create an environment of respect and rapport	• Demonstrates knowledge of resources • Understands how to design coherent instruction • Understands how to select instructional goals • Demonstrates the ability to select adequate teaching materials according to the lesson plan and the subject matter • Assessment of student performance	• Demonstrates the ability to design student assessments • Demonstrates the ability to grade and evaluate on the basis of objective standards • Demonstrates the ability to use a variety of different assessment techniques • Demonstrates the ability to use assessments appropriate to given tasks	• Understands how to engage students in learning • Demonstrates flexibility and responsiveness to student responses to instruction • Understands how to use various instructional techniques, including questioning and discussion • Demonstrates an understanding of how to support of independent learning strategies • in students	• an understanding of how students learn and develop • Demonstrates an understanding of the physical, social, and intellectual development and characteristics of students • Can differentiate teaching to meet the specific needs of students with diverse linguistic, cultural, religious or socio-economic backgrounds. • Demonstrates an understanding of independent learning strategies in pupils • Can differentiate teaching to meet the specific learning needs of students across the full range of abilities • Demonstrates strategies to support full participation of students with disabilities	• Can demonstrate the importance of self-understanding and ongoing professional development • Can demonstrate an ability to assess, provide feedback, and report on student learning • Can demonstrate an ability to create and maintain a supportive and safe learning environment • Can demonstrate an ability to engage professionally with colleagues, parents and the community • Can demonstrate the importance of adapting to the school curriculum and regulatory framework • Can demonstrate the importance of updating knowledge in subject areas

Assessment Material & Mapping

A. ASSESSMENT MATERIALS

the texts and scenarios used in the assessment represent real-world experiences that teachers are likely to encounter in the workplace;

the texts and scenarios used in the assessment are culturally appropriate, involve context familiar to students, and are readily-translatable between Arabic and English;

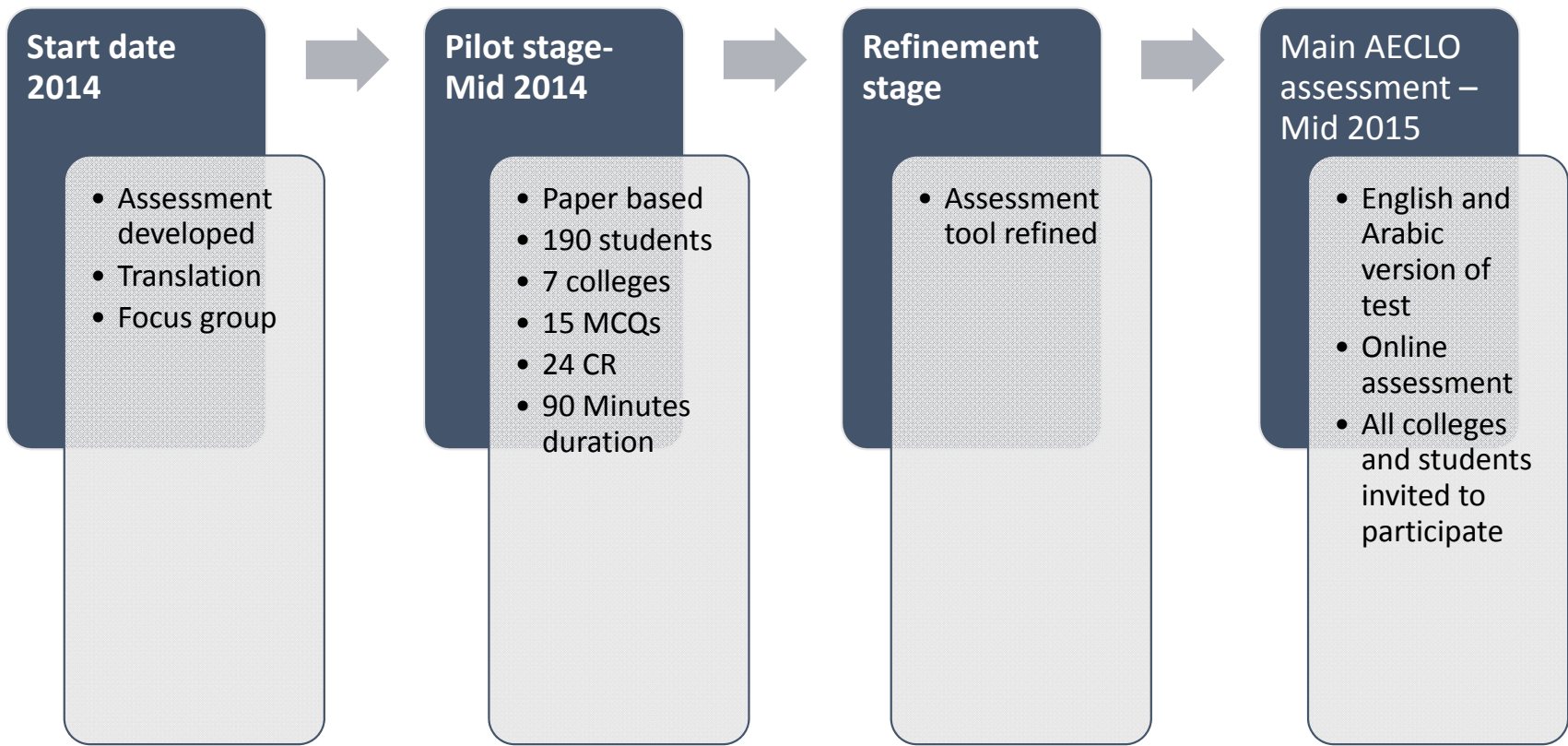texts and stimulus materials are limited in length to avoid burdensome reading load;

B.ASSESSMENT MAPPING

Once the AECLO assessment instrument was finalised, an exercise was completed which mapped the included question to the AECLO assessment framework.

This process demonstrated that all of the six domains defined in the assessment framework are represented in the instrument.

Time Frame and Stages of the AECLO

Start date 2014

- Assessment developed
- Translation
- Focus group

Pilot stage- Mid 2014

- Paper based
- 190 students
- 7 colleges
- 15 MCQs
- 24 CR
- 90 Minutes duration

Refinement stage

- Assessment tool refined

Main AECLO assessment – Mid 2015

- English and Arabic version of test
- Online assessment
- All colleges and students invited to participate

CR: Constructed Responses

Pilot

Till June 2014, total 180 completed AECLO pilot assessment instruments were returned:

AECLO Pilot Participants	Completed
INSTITUTION A	46
INSTITUTION B	35
INSTITUTION C	22
INSTITUTION D	52
INSTITUTION E	18
INSTITUTION F	7
INSTITUTION G	-
INSTITUTION H	-
Total	**180**

In addition to the assessment instrument, each student who participated in the AECLO pilot was also asked to complete a short questionnaire. The first objective was to collect demographic information about participants to assist with psychometric analysis of assessment results.

The second objective was to receive feedback from participants about the assessment instrument used in the pilot. This included statements such as "the tasks were relevant to my program of study" and participants were asked to indicate their level of agreement with each statement.

FINAL AECLO ASSESSMENT INSTRUMENT

Final cohort of students	Language	Question types	Markers
• *206 students in their final year of study*	• *English and Arabic Test*	• *9 MCQs* • *3 Closed Constructed Responses (CCR)* • *30 Long Constructed Responses (CRs)*	• *All the CRs scored by 2 expert markers*

AECLO student population and participation by institution, n= 1,396

Institution	Population (n)	Participants (n)	Participation rate (%)
Institution A	1,021	43	4%
Institution B	186	20	11%
Institution C	29	26	90%
Institution D	52	42	81%
Institution E	12	12	100%
Institution F	40	37	93%
Institution G	56	26	46%
	1,396	206	15%

Student characteristics		Abu Dhabi Education Colleges	
		n	#
	35 or older	24	13%
Study level	Undergraduate	157	92%
	Postgraduate	14	8%
Narrow field of education	Arabic language or Islamic studies	36	21%
	English language	16	9%
	Mathematics or Science	15	9%
	Information Technology	16	9%
	Early Childhood Education	19	11%
	Special Education	18	11%
	Education (not further specified)	49	29%

On Average Students achieved the highest score for the IS domain

Assessment of Student Performance (ASP);
Instructional Strategies (IS);
Learner Development and Differences (LDD);
The Learning Environment (LE);
Planning and Preparation (PP); and
Professional Responsibility (PR).

Conclusion and Recommendation

- AECLO was successfully able to distinguish between student performance between institutions
-
- Overall it suggested students were able to apply their knowledge and skills in the areas of
  Instructional strategies ; Assessment of student performance ;Learner development and differences

- One institution consistently outperformed the others
- Each institution received a detailed report on the performance of their students
- It provided ADEC with unique insights in the performance of the education students

<u>Future Recommendations</u>:

o AECLO Assessment need to be implemented on a regular basis to monitor improvements and trends between different cohorts of the students

o Use the data and develop plans for improvement

o Encourage continous and ongoing collaboration amongst the colleges and ADEC

Thank you

APPENDIX SLIDES

Project objective is to investigate the skills and knowledge of students who are close to completing education courses.

AECLO Expert Group

Expert Group Institutions:
- *Al Ain University of Science and Technology*
- *Abu Dhabi University*
- *Al Hosn University*
- *Emirates College for Advanced Education*
- *Higher Colleges of Technology*
- *United Arab Emirates University*
- *Zayed University*

AECLO Expert Group has been established to ensure that the AECLO assessment is fully appropriate for use with education students in Abu Dhabi.
The other members of the group are school principals from across the public and private primary and secondary education sector in Abu Dhabi.

The AECLO Expert Group:
- *Advises on what all education graduates should know and be able to do by the end of their courses, developing synergies between the two groups.*
- *Advises on the structure, focus, format and implementation of the AECLO assessment and*
- *Provides guidance on the context in which students study and in which they will work after graduation.*

Assessment Framework: The AECLO framework was developed in a series of stages: Stage 1

Stage 1: International models for the assessment of teacher standards

A number of existing international models for the assessment of teacher standards were consulted.

• International - A Comparative Study of Teacher Preparation and Qualifications in Six Nations (Ingersoll, 2007)
• Australia - National Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2011)
• Germany - development of a scale to assess the demand for specific competences in teachers after graduation from university (Landmann, 2013)
• Singapore - Teacher Education Model for the 21st Century (National Institute of Education, 2010)
• Alabama, United States - Alabama Educator Certification Testing Program (Alabama Department of Education, 2014)
• California, United States - California Basic Educational Skills Test (California Educator Credentialing Exams, 2014)
• United States – InTASC Model Core Teaching Standards (Council of Chief State School Officers, 2011)
• United States – EdTPA (Stanford Center for Assessment, Learning and Equity, 2014)

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Assessment Framework: The AECLO framework was developed in a series of stages- STAGE 3

Stage 3: Focus groups with students

focus groups were conducted with education students at a number of higher education institutions

- *Focus groups with students from **Al Ain University of Science and Technology, the Emirates College of Advanced Education** and **the United Arab Emirates University**.*

- ***Each focus group consisted of 5 or 6 student participants**, all of whom had volunteered their time.*

- ***All participants were female Emirati nationals, ranging in age from 22 years to 37 years.***

- *Each focus group students were asked to complete the same set of generic skills tasks which had been used in the Expert Group meeting.*

- *They were able to do so in either English or Arabic.*

- *They were then asked to evaluate the test questions they had sat, both through discussion with facilitators and on a written survey.*

Assessment Framework: The AECLO framework was developed in a series of stages- STAGE 4

Stage 4: Drafting of AECLO Assessment Framework

The drafted Assessment Framework provides the context and shape for the AECLO Assessment Instrument, with reference to the following requirements:

Requirements:

- *Assessment stimuli which presents a range of pedagogical scenarios;*

- *Assessment items which call on students to demonstrate their ability to solve problems and or identify appropriate action in the circumstances which the scenarios identify;*
- *Computer based delivery in both English and Arabic languages; and*

- *A length of 60 to 90 minutes.*

Pilot

Piloting

To ensure that AECLO assessment instrumentation is well grounded in the context of teacher education in Abu Dhabi it is essential that each selected question on the assessment instrument is piloted with students.

Each participating institution was asked to nominate the number of students likely to participate in piloting and the date on which piloting would occur.

ACER then delivered sufficient paper based versions of the AECLO assessment instrument to the institution in advance of testing.

Once testing was complete, the institution contacted ACER and ACER arranged for the assessment materials, as well as any remaining materials, to be collected and returned to ACER.

To assist with piloting, ACER provided each institution with a guide in both English and Arabic.

This was to ensure that piloting would take place consistently across institutions. The guide defined the role of the test administrator, how to prepare for the pilot test (e.g. confirming delivery details and arranging a venue), how to administer the pilot and how to finish the pilot.