

Concept note for selected capacity development modules

COVID-19: Monitoring Impacts on Learning Outcomes (MILO)

The Global Education Monitoring (GEM) Centre drives improvements in learning by supporting the monitoring of education worldwide. It is a long-term partnership between the Australian Council for Educational Research (ACER) and the Australian Government's Department of Foreign Affairs and Trade (DFAT).



Acknowledgments

This project, the Assessment and Study of COVID Impact on Learner Progress, is referred to as the COVID-19 MILO (Monitoring Impacts on Learning Outcomes) project. This UNESCO Institute for Statistics (UIS) project is funded by the Global Partnership for Education (GPE).

The Australian Council for Educational Research (ACER) is the technical partner for this project. Support is provided from the Global Education Monitoring (GEM) Centre, an ACER initiative in partnership with the Australian government's Department of Foreign Affairs and Trade. The GEM Centre is also contributing to the UIS Global Item Bank. Technical and implementation support, and contribution to the assessment item pool, is provided by CONFEMEN.

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Introduction

The COVID-19: Monitoring Impacts on Learning Outcomes (MILO) project aims to measure learning outcomes in six countries in Africa, in order to analyse the long-term impact of COVID-19 on learning and to evaluate the effectiveness of distance learning mechanisms utilised during school closures. In addition, this project will develop the capacity of countries to monitor learning after the crisis.

The four overarching goals of the project are to:

- Evaluate the impact of COVID-19 on learning outcomes and measure the learning loss by reporting against SDG indicator 4.1.1b
- Identify the impact of different distance learning mechanisms put in place to remediate the learning disruption generated by COVID-19
- Expand the UIS bank of items for primary education
- Generate a toolkit so that assessment results can be scaled to international benchmarks, reporting against SDG 4.1.1.b.

This document, the **Concept Note for Selected Capacity Development Modules** presents the activities to increase large-scale learning assessment capacity in participating countries. Capacity development is an integral part of the project implementation. This includes capacity building activities that form part of specific MILO tasks, as well as the capacity development modules. The overall aim of the MILO capacity development is to leverage off the project implementation in order to build sustainable capacity of national teams in developing, implementing and using data from large-scale learning assessments for education system monitoring. Detailed information about the two capacity development modules that will be provided as part of the MILO project are provided in this Concept Note.

Participating countries

The proposed capacity development modules aim to build upon the experience that the six participating countries' have in implementing large-scale assessments. There are four Francophone countries participating in MILO: Burkina Faso, Burundi, Côte d'Ivoire and Senegal. There are two Anglophone countries participating in MILO: Kenya and Zambia. The four Francophone countries also participate in the Programme for the Analysis of Education Systems (PASEC), which is implemented by the Conference of Ministers of Education of French-Speaking Countries (CONFEMEN). CONFEMEN is coordinating the participation of the four Francophone countries in MILO.

In each of the MILO participating countries an Assessment Unit (or equivalent), is responsible for administering the MILO, referred to as the National Centre, and this team will be the focus of capacity development activities.

MILO capacity development framework

The capacity development that ACER will provide to participating countries is based on the Principles of Good Practice in Learning Assessment¹. Figure 1 shows the 14 key areas and lifecycle of a robust assessment program. The cycle flows from defining policy goals and education issues, to designing and implementing the assessment, through to analysis and reporting, which inform the initially defined policy goals, and identify new ones as the cycle re-commences.

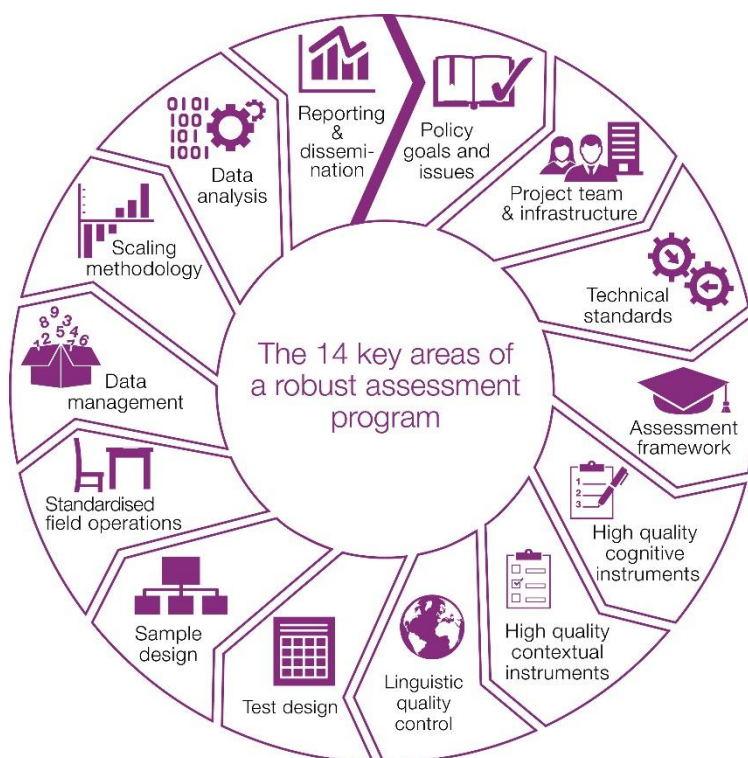


Figure 1: The 14 key areas of a robust assessment program (ACER & UIS, 2017)

The 14 key areas of a robust assessment program align with the MILO capacity development activities. This is presented in Table 1, which shows how each key area links with activities aimed to develop partner countries capacity.

The focus of MILO capacity development is on skill development through working directly with ACER experts on key tasks, using professional tools and manuals, along with expert advice and discussion. Professional tools that countries will use include data management software. Developing the capacity to use such tools increases the quality of data that countries can collect in undertaking monitoring programs. Manuals will provide information and justification about the technical rigour of the assessment, such as relating to the technical standards of data collection and management. Throughout all

¹ ACER & UNESCO Institute for Statistics. (2017). Principles of Good Practice in Learning Assessment. ACER. <http://uis.unesco.org/sites/default/files/documents/principles-good-practice-learning-assessments-2017-en.pdf>

stages of the assessment program lifecycle, ACER experts will be available for countries to consult with to gain specific advice and instruction.

In initial consultation with participating countries, they expressed a specific need for capacity building in: item development, psychometric methods, and data analysis. For this reason, seven potential learning modules were outlined for MILO National Centres to rate according to their highest priority. Based on the overall ranking of the National Centres two learning modules will be offered:

- Module 1: High quality assessment items: Item development
 - 1A: Reading
 - 1B: Mathematics
- Module 2: Psychometric methods: Introduction to Educational Measurement.

These two MILO capacity development modules align with the key areas of assessment that are an integral part of capacity development in MILO (see Table 1). The modules are italicised in Table 1 to highlight where they link with each of the key areas of robust assessment programs. Detail is provided about each of the two capacity development modules in the subsequent section.

Table 1: Alignment of capacity development activities with key areas of assessment program

Key area	MILO Activity
Policy goals and issues	Defined by UIS, and refined in consultation with MILO country partners and ACER.
Project team and infrastructure	Determined by each MILO participating organisation.
Technical standards	MILO participants learn through applying the MILO technical standards they are responsible for, with the assistance of technical manuals. Countries will document their own adherence to the standards with feedback provided by ACER.
Assessment framework	A core element of an assessment framework was produced by ACER – an assessment blueprint – which breaks down the percentage of items needed across each of the learning domains. It was shared with MILO participants.
High quality cognitive instruments	<i>High quality assessment items: Item development: Reading and Mathematics (Module 1)</i>
High quality contextual instruments	A contextual framework is similarly developed by ACER and shared with MILO participants.
Linguistic quality control	ACER guided MILO participants on making local adaptations to questionnaires and manuals.
Test design	<i>Psychometric methods: Introduction to Item Response Theory (Module 2)</i>
Sample design	In consultation with MILO participants, ACER developed a sampling framework document. To achieve this, participants completed technical forms with the assistance of the guidelines, thereby advancing their knowledge of sampling design.
Standardised field operations	ACER guided MILO participants through field operations documents and provided National Project Manager training and resources to train Test Administrators.
Data management	MILO participants will undertake data management, with the assistance of the ACER data management manual. Additionally, a webinar series for all participating countries was provided to cover training on the use of ACER’s data management software – Maple.
Scaling methodology	A report detailing the analysis methods and results of aligning the scores from the MILO test booklets and the national assessment will be shared with MILO participants.
Data analysis	A report detailing the analysis methods and results of aligning the scores from the MILO test booklets and the national assessment will be shared with MILO participants.
Reporting and dissemination	ACER will produce a final report and country summaries for the UIS for dissemination. Countries will observe how analysis is communicated, thereby advancing their analytical reporting abilities, with particular regard to future SDG 4.1.1b reporting.

MILO capacity development modules

Module 1 will support participants to build on their item writing skills in Reading (Module 1A) and Mathematics (Module 1B).

With regard to scaling methods, ACER will undertake the core psychometric tasks in the MILO study due to the tight timeframes imposed. Therefore Module 2 is offered to participating countries as a way of building capacity for future assessment activities. The module covers an introduction to Item Response Theory (IRT).

Materials for the two modules have been developed in English and will be fully available in English. Core material will be provided in French in order to support French speaking participants. There will also be interpretation from English to French provided by the UIS during the workshops.

S'il vous plaît noter pour les chefs de projet nationaux français:

Les supports des deux modules ont été développés en anglais et sont entièrement disponibles en anglais. Le matériel de base sera fourni en français à l'appui des participants francophones. Une interprétation de l'anglais vers le français sera également assurée par l'ISU pendant les ateliers.

Module 1a: High quality assessment items: Reading

Module 1a	High quality assessment items: Item development for <u>reading</u>
Aim	Item writing is an essential skill for developing and conducting assessments. In this workshop participants will develop their item writing skills in reading, in particular for students in upper primary school. Participants will receive instruction in item writing for reading, including the importance of assessment frameworks, considering the role of different item formats, and issues of equity and transparency. Participants will review existing material and write new items under the supervision of ACER’s test development experts.
Target audience	National Centre test development team/item writers, i.e. the people who are responsible for developing standardised assessment content for reading. Priority will be given to the first three people who register their interest from each country.
Facilitators	The workshop will be run by three experienced reading test developers from ACER, led by Dr Dara Ramalingam, Team Leader, Assessment and Psychometric Research, ACER. Material submitted by countries will be reviewed by two teams of ACER test developers, with one team reviewing content submitted in French, and the other in English. The six workshop units will be delivered in English via Zoom, accompanied by French live interpretation.
Level	Introductory. Participants should have knowledge of the assessment of reading and/or teaching of reading.
Topics	<p>Topics and activities include:</p> <ul style="list-style-type: none"> • The importance of assessment frameworks; • Principles of good item development; • The role of different item formats; • Scoring guidelines for constructed-response items; • Item review procedures, such as item panelling • Review existing items and stimulus material and write new items; • Preparing items for inclusion in the Global Item Bank: formatting and metadata. <p>Participants will be required to submit two pieces of stimulus material to ACER. ACER will select one of these for further development during the module. Further information will be provided on how to prepare and submit stimulus material.</p>

<p>Mode</p>	<p>The workshop is planned as a sequence of instructions and practical exercises. In total there will be 12 hours of contact time. Sessions will be presented via Zoom, using breakout rooms where indicated. All materials will be shared using MyCloud. The proposed outline for each unit in the module is below.</p> <p><i>Module outline</i></p>	
<p><i>Activity</i></p>	<p><i>Date/Time</i></p>	<p><i>Time required from participants</i></p>
<p>ACER will send the guidelines for item development to each participating country group.</p>	<p>Mid-July</p>	<p>N/A</p>
<p>Participants work in country groups to write or source two pieces of stimulus material suitable for inclusion in an assessment of upper primary students. The material should NOT have been previously included in a national or regional assessment.</p>	<p>15-30 July</p>	<p>4 hours (self-paced)</p>
<p>ACER will choose one stimulus text for item development during the module, and send decision to participants.</p>	<p>30 July - 3 August</p>	<p>N/A</p>
<p>Each country group to draft 3 – 4 items for the selected stimulus and send to ACER.</p>	<p>5 Aug - 23 August</p>	<p>1 day (self-paced)</p>
<p><i>Unit 1: Assessment frameworks</i></p> <ul style="list-style-type: none"> • Why are assessment frameworks important? • Review of the main features of the Global Proficiency Framework for reading (GPF). • Activity: Classify material according to the GPF 	<p>Tuesday 24 August 7pm-9pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>
<p><i>Unit 2: Selecting stimulus</i></p> <ul style="list-style-type: none"> • Criteria for selection • Examples presented by ACER • Local examples (panel groups) • Plenary discussion of issues covered 	<p>Wednesday 25 August 7pm-9pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>

<p>Unit 3: Writing items</p> <ul style="list-style-type: none"> Lecture, based on UIS Global Item Bank guidelines (including item format requirements, intent / aspect, bias and cultural concerns, etc.) Activity: Review of sample items 	<p>Tuesday 31 August 7pm-9pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>
<p>Unit 4: Coding guides</p> <ul style="list-style-type: none"> Lecture, based on UIS Global Item Bank guidelines (with particular attention to requirements for open-ended and closed constructed response items) Activity: Review examples 	<p>Wednesday 1 September 7pm-9pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>
<p>Unit 5: Panelling of items</p> <ul style="list-style-type: none"> Panelling local items Process – short lecture Divide into panelling groups Each group to panel 2 or 3 units, including 1 that each member contributed to Plenary discussion – the experience of panelling 	<p>Wednesday 8 September 7pm-9pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>
<p><i>In between units 5 and 6, participants will be asked to revise their items in light of the panel feedback and provide their revised versions prior to the commencement of Module 6.</i></p>	<p>Thursday 9 September – Sunday 12 September</p>	<p>2 hours (self-paced)</p>
<p>Module 6: Review of items</p> <ul style="list-style-type: none"> Sharing of process and results of panelling Conclusion / Summary 	<p>Wednesday 15 September 7pm-9pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>

Translation of material and interpretation

An interpreter will be present during all sessions.

Material that will be translated will include:

- The UIS Global Item Bank item submission guidelines for reading
- An excerpt from the GPF for reading
- All PowerPoint presentations
- All activity worksheets for use during the module

Module 1b: High quality assessment items: Mathematics

Module 1b	High quality assessment items: Item development for <u>mathematics</u>
Aim	Item writing is an essential skill for developing and conducting assessments. In this workshop participants will develop their item writing skills for mathematics, in particular for students in upper primary school. Participants will receive instruction in item writing, including the importance of adhering to frameworks, considering the role of different item formats, and issues of equity and transparency. Participants will review existing material and write new items under the supervision of ACER's test development experts.
Target audience	National Centre test development team/item writers, i.e. the people who are responsible for developing standardised assessment content for mathematics. Priority will be given to the first three people who register their interest from each country.
Facilitators	The workshop will be run by three experienced reading test developers from ACER, led by Stavroula Zoumboulis, Team Leader, Assessment and Psychometric Research, ACER. Material submitted by countries will be reviewed by two teams of ACER test developers, with one team reviewing content submitted in French, and the other in English. The six workshop units will be delivered in English via Zoom, accompanied by French live interpretation.
Level	Introductory: Participants should have knowledge of the assessment of mathematics and/or teaching of mathematics.
Topics	<p>Topics and activities include:</p> <ul style="list-style-type: none"> • The importance of assessment frameworks; • Principles of good item development; • The role of different item formats; • Scoring guidelines for constructed-response items; • Basic considerations for linguistic quality control when translating and adapting items into multiple languages; • Item review procedures, such as item panelling and cognitive laboratories; • Review existing items and stimulus material (provided in English or French by participants), and write new items together with ACER's test development experts; • Preparing items for inclusion in the Global Item Bank: formatting and metadata. <p>Participants will be required to submit two pieces of stimulus material to ACER. ACER will select one of these for further development during the module. Further information will be provided on how to prepare and submit stimulus material.</p>

<p>Mode</p>	<p>The workshop is planned as a sequence of instructions and practical exercises. In total there will be 12 hours of contact time. Sessions will be presented via Zoom, using breakout rooms where indicated. All materials will be shared using MyCloud. The proposed outline for each unit in the module is below.</p> <p><i>Module outline</i></p>	
<p><i>Activity</i></p>	<p><i>Date/Time</i></p>	<p><i>Time required from participants</i></p>
<p>ACER will send the guidelines for item development to each participating country group.</p>	<p>Mid-July</p>	<p>N/A</p>
<p>Each country group is to send two pieces of stimulus to ACER. Participants work in country groups to write or source two pieces of stimulus material suitable for inclusion in an assessment of upper primary students. The material should NOT have been previously included in a national or regional assessment.</p>	<p>15-30 July</p>	<p>4 hours (self-paced)</p>
<p>ACER will choose one stimulus for item development during the module, and send decision to participants.</p>	<p>30 July - 4 August</p>	<p>N/A</p>
<p>Each country group to draft 2 – 3 items for the selected stimulus and send to ACER.</p>	<p>5 Aug - 23 Aug</p>	<p>1 day (self-paced)</p>
<p><i>Unit 1: Assessment frameworks</i></p> <ul style="list-style-type: none"> • Why are assessment frameworks important? • Review of the main features of the Global Proficiency Framework (GPF) for mathematics. • Activity: classify material according to the GPF 	<p>Thursday 26 August 7pm-9pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>
<p><i>Unit 2: Selecting stimulus criteria for selection</i></p> <ul style="list-style-type: none"> • Examples presented by ACER • Local examples (panel groups) • Plenary discussion of issues covered 	<p>Monday 30 August 7pm-8:30 pm (AEST) Melbourne 9am-10:30am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-12:30pm (CAT) Burundi and Zambia Midday-1:30pm (EAT) Kenya</p>	<p>1.5 hours</p>

<p>Unit 3: Writing items</p> <ul style="list-style-type: none"> Lecture, based on UIS Global Item Bank guidelines (including item format requirements, intent / aspect, bias and cultural concerns, etc.) Activity: Review of sample items (whole group discussion) Activity: Individually revise items written in light of new information explored in Unit 2 and Unit 3 – opportunity to ask questions, seek clarification (Break out rooms to be facilitated by ACER staff) 	<p>Thursday 2 Sep 7pm-9:30pm (AEST) Melbourne 9am-11:30am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1:30pm (CAT) Burundi and Zambia Midday-2:30pm (EAT) Kenya</p>	<p>2.5 hours</p>
<p>Unit 4: Coding guides</p> <ul style="list-style-type: none"> Lecture, based on UIS Global Item Bank guidelines (with particular attention to requirements for open-ended and closed constructed response items) Activity: Review examples (whole group discussion) Activity: Individually revise scoring guides for constructed response items written in light of new information explored in Unit 4 – opportunity to ask questions, seek clarification (Break out rooms will be facilitated by ACER staff) 	<p>Monday 6 Sep 7pm-9:00pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>
<p>Unit 5: Panelling of items</p> <ul style="list-style-type: none"> Process – short lecture Panelling local items <ul style="list-style-type: none"> Divide into panelling groups Each group to panel 2 or 3 units, including 1 that each member contributed to Plenary discussion – the experience of panelling 	<p>Thursday 9 Sep 7pm-9:00pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>
<p><i>In between units 5 and 6, participants will be asked to revise their items in light of the panel feedback and provide their revised versions prior to the commencement of Unit 6.</i></p>	<p>Thursday 9 September – Sunday 12 September</p>	<p>2 hours (self-paced)</p>
<p>Unit 6: Review of items</p> <ul style="list-style-type: none"> Sharing of process and results of panelling Conclusion / Summary 	<p>Thursday 16 Sep 7pm-9:00pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya</p>	<p>2 hours</p>

Translation of material and interpretation

An interpreter will be present during all sessions.

Material that will be translated will include:

- The UIS Global Item Bank item submission guidelines for mathematics
- An excerpt from the GPF for mathematics
- All PowerPoint presentations
- All activity worksheets for use during the module

Module 2: Psychometric methods – Introduction to Educational Measurement

Module 2	Psychometric methods: Introduction to Educational Measurement
Aim	Participants in this module will be able to: <ul style="list-style-type: none"> • Describe the key measurement concepts of reliability, validity and measurement error, including the relationships between these, under Classical Test Theory and Item Response Theory paradigms; and • Analyse item- and test-level data from standardised assessments using ACER ConQuest with an emphasis on applying the Rasch model and its extensions to generate information that can be used to improve the quality of measures.
Target audience	<p>This course is appropriate for members of the National Centre who are education professionals, researchers and analysts working across sectors including schools, vocational education and training and higher education who wish to gain an understanding of educational measurement or pursue a specialisation in educational measurement.</p> <p>More specifically, this module is designed to cater for the analysis team within the National Centres.</p> <p>Priority will be given to the first three people who register their interest from each country.</p>
Facilitators	<p>Self-paced learning delivered via the Moodle platform will be facilitated by Dr David Jeffries, Research Fellow, ACER, and who is a former mathematics and science teacher.</p> <p>Face-to-face workshops delivered via Zoom will be facilitated by Dr Dan Cloney, Senior Research Fellow, ACER, and co-author of item response theory software ConQuest.</p> <p>All aspects of module design and implementation will be supported by Dr Nathan Zoanetti, Director of Psychometrics and Methodology, ACER.</p>
Level	<p>Introductory: This course is appropriate for education professionals, researchers and analysts working across sectors including schools, vocational education and training and higher education who wish to gain an understanding of educational measurement or pursue a specialisation in educational measurement. This course does not assume participants have extensive knowledge of the foundations of assessment or basic working knowledge of statistics. However, the course will bring the greatest benefits to those with previous experience in designing assessments or working with educational assessment data.</p>
Topics	<p><i>Unit 1 - Foundations of Educational Measurement</i></p> <ul style="list-style-type: none"> • Objective measurement • Discuss approaches for interpreting student achievement, including developmental continua and learning progressions • Reliability, validity and measurement error <p><i>Unit 2 - Classical Test Theory and Item Response Theory</i></p> <ul style="list-style-type: none"> • Compare and contrast Classical Test Theory (CTT) and Item Response Theory (IRT) (introductory) • Analyse Item Characteristic Curves (ICCs) • Classify the quality of tests items by analysing item analysis output

Module 2	Psychometric methods: Introduction to Educational Measurement									
	<p><i>Unit 3 - Item and test analysis using ACER ConQuest</i></p> <ul style="list-style-type: none"> Applied analysis of item and test level data with an emphasis on applying the Rasch model and its extensions to generate information that can be used to improve the quality of measures 									
<p>Mode</p>	<p>This module is provided online using the Moodle platform. Each participant will receive a username and password prior to the start date of the module introduction session. All content and activities are self-contained and delivered using the micro-credential model: focusing on short, flexible, skill-specific units.</p> <p>This module has 3 units. Each one includes self-paced learning (lectures, videos, activities, and reading), group discussion (via videoconferences), and skill-based assessments (i.e. Learning Assurance Tasks (LATs)). Unit 1 and 2 are designed to take 5 hours to complete and Unit 3 is designed to take approximately 8 hours to complete. There will also be an introduction session prior to the initiation of the module and a wrap-up session at the conclusion.</p> <p>The units will each be completed over a one-week period (over a total of three weeks). The LATs include a multiple-choice quiz at the end of unit 1 and 2 and a practical task for unit 3 which involves using ACER ConQuest to produce and interpret a multiple-choice item analysis and a short-answer question analysis and make recommendations that would lead to improvements in the measures produced by each of these assessments. Participants will be required to:</p> <ul style="list-style-type: none"> Download and install ConQuest (organisational license required) and R software prior to the start of the module Complete all self-paced activities prior to each face-to-face workshop and Q and A session Attend all face-to-face sessions Complete the Learning Assurance Tasks (LATs) <p>Communication between participants and module facilitators will be done within the Moodle platform. The face-to-face workshop and Q and A sessions will provide participants with multiple opportunities to engage with other participants and facilitators about the content covered in the module.</p> <p>All core materials included within Moodle will be translated. All face-to-face sessions will utilise an interpreter.</p> <p>A detailed outline for each activity is provided below.</p> <p><i>Module outline</i></p>									
	<p><i>Activity</i></p>	<table border="1"> <thead> <tr> <th data-bbox="952 1529 1219 1709"><i>Date/Time</i></th> <th data-bbox="1219 1529 1396 1709"><i>Time required from participants</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="952 1709 1219 1794">Mid-August</td> <td data-bbox="1219 1709 1396 1794"></td> </tr> <tr> <td data-bbox="952 1794 1219 1845">Mid-late August</td> <td data-bbox="1219 1794 1396 1845">30 minutes</td> </tr> <tr> <td data-bbox="952 1845 1219 1960">8 September 9pm-10:30pm (AEST) Melbourne</td> <td data-bbox="1219 1845 1396 1960">1 ½ hours</td> </tr> </tbody> </table>	<i>Date/Time</i>	<i>Time required from participants</i>	Mid-August		Mid-late August	30 minutes	8 September 9pm-10:30pm (AEST) Melbourne	1 ½ hours
<i>Date/Time</i>	<i>Time required from participants</i>									
Mid-August										
Mid-late August	30 minutes									
8 September 9pm-10:30pm (AEST) Melbourne	1 ½ hours									

Module 2		Psychometric methods: Introduction to Educational Measurement		
			11am-12:30pm (GMT) Senegal, Cote D'Ivoire, Burkina Faso 1pm-2:30pm (CAT) Burundi and Zambia 2pm-3:30pm (EAT) Kenya	
<i>Unit 1</i>	Self-paced learning	<ul style="list-style-type: none"> • Complete e-books on: <ul style="list-style-type: none"> ○ Measurement ○ Scale and magnitude ○ Measuring student achievement ○ Validity and reliability ○ Measurement error and test targeting • End of unit quiz 	By 15 September	4 hours
	Workshop (Face-to-face via zoom)	<p>15 September</p> <p>9pm-10pm (AEST) Melbourne</p> <p>11am-Midday (GMT) Senegal, Cote D'Ivoire, Burkina Faso</p> <p>1pm-2pm (CAT) Burundi and Zambia</p> <p>2pm-3pm (EAT) Kenya</p>		1 hour
<i>Unit 2</i>	Self-paced learning	<ul style="list-style-type: none"> • Complete e-books on: <ul style="list-style-type: none"> ○ Classical Test Theory (CTT) ○ Item Response Theory (IRT) ○ CTT vs IRT • End of unit quiz 	By 22 September	4 hours
	Workshop (Face-to-face via zoom)	<p>22 September</p> <p>7pm-8:00pm (AEST) Melbourne</p> <p>9am-10am (GMT) Senegal, Cote D'Ivoire, Burkina Faso</p> <p>11am-12pm (CAT) Burundi and Zambia</p> <p>Midday-1pm (EAT) Kenya</p>		1 hour
	Self-paced learning		By 29 September	7 hours

Module 2	Psychometric methods: Introduction to Educational Measurement			
	<i>Unit 3</i>	<ul style="list-style-type: none"> • Complete e-books on: <ul style="list-style-type: none"> ○ Rasch model for dichotomous items ○ Rasch partial credit model • End of unit practical task • Perform your own ConQuest analysis 		
		Workshop and wrap-up session (Face-to-face via zoom)	29 September 7pm-9:00pm (AEST) Melbourne 9am-11am (GMT) Senegal, Cote D'Ivoire, Burkina Faso 11am-1pm (CAT) Burundi and Zambia Midday-2pm (EAT) Kenya	2 hours
Material	All course material will be presented in the Moodle designed specifically for this module. Any additional material that is required to ensure everyone can participate fully in this module will be emailed to participants directly.			
Translation of material & interpretation	Key content will be translated into French, including text within Moodle units and either transcripts or closed captions for videos. The live videoconferences will utilise an interpreter arranged by the UIS for simultaneous translation into French. The interpreter will assist with communication (e.g. comments, questions and discussion) between French speaking participants and English speaking facilitators and participants.			
Follow-up activities (Optional)	Workshop participants are encouraged to apply their new skills to analyse item- and test-level data from assessments conducted in their local context using ACER ConQuest. ACER ConQuest is professional item response and latent regression modelling software and is used to analyse assessment data from large scale studies, including national and international assessment programs. The provided licence to ACER ConQuest ² can be used to analyse very large data sets, is valid for 12 months, and support is provided through ACER's in-house expert team.			

² Information about the ConQuest Licence Agreement is provided here <https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:fd7cac41-e3a9-41f7-bf1e-09bedf03d820>