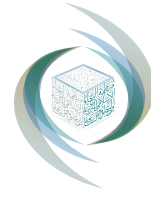




مسقط 2024
Muscat 2024



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ICESCO Education Ministers Conference

ICESCO EMC 3

Beyond Transforming
Education Summit:
from Commitments to Actions

3.4

**Contextualizing PISA:
Empowering ICESCO Member States
for Global Excellence in Education**

Muscat,
Sultanate of Oman

2-3
October

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Abstract

The Programme for International Student Assessment¹ (PISA) is a global study that evaluates the proficiency levels of 15-year-old students in reading, mathematics, and science. Conducted every three years since its inception in 2000, the most recent cycle (2022), delayed by a year due to the pandemic, focused on mathematics. PISA also assesses broader competencies like collaborative problem-solving, aiming to gauge functional skills acquired by students nearing the end of compulsory schooling. Each cycle emphasizes a single major domain of study, rotating between mathematics, science, and reading, with the PISA 2022 assessment covering approximately 80 countries and education systems, including many ICESCO member states.

In recent years, the OECD has made PISA more accessible to and relevant for a wider range of countries through its PISA for Development (PISA-D) initiative. This project has helped to increase participation in PISA by low-and-middle-income-countries to the extent that PISA 2025 (the latest cycle of the study) has the largest participation (93 countries and economies) since the first round of the assessment (2000) when there were 43 participants. However, it is still the case that PISA may not account fully for the diverse cultural, religious, and socio-economic contexts in which students learn in many ICESCO member states. This joint proposal of ICESCO and OECD therefore aims to make PISA more accessible to and relevant for ICESCO member states. **This proposal will help increase participation in PISA by ICESCO member states and contribute to improve education system performance and global competitiveness among these countries by providing valuable and relevant data and evidence to inform education policy.**

In this regard, the Islamic World Educational, Scientific, and Cultural Organization (ICESCO), is diligently engaged in the development of a pilot initiative with the OECD to ensure that PISA assessments better reflect the cultural, linguistic, socio-economic and historical contexts of ICESCO member states, and thus enhance their acceptability, appropriation, and equity.

1. Data - PISA. (n.d.). Oecd.Org. Retrieved March 22, 2024, from <https://www.oecd.org/pisa/data/>

I. Introduction

1. Global Competence and Contextual Considerations in PISA Assessment

Findings from The Future of Jobs Report 2023² highlight the seismic shifts expected in the job market, with approximately 23% of all jobs, projected to undergo significant changes by 2027. Additionally, 44% of workers' skills are predicted to face disruption within the next five years. These upcoming challenges underscore the urgent need for education systems and policies to adapt to the evolving needs of the workforce. Besides, the rapid integration of automation and robotization is reshaping industries and redefining the skills required for the future. The effect of COVID-19 has further exacerbated instability, prompting a reassessment of traditional modes of learning and work. Furthermore, the relentless progress of Artificial Intelligence and other technological advancements introduces unprecedented complexities and uncertainties, while offering innovative opportunities for education.

Looking ahead, the period between 2030 and 2040 is to witness even greater upheaval, with heightened risks and challenges looming over the future landscape of employment. It is imperative that education systems equip students with the skills and competencies needed to thrive in this dynamic environment. By fostering adaptability, critical thinking, and digital literacy, education policies can empower individuals to overcome the uncertainties of the future job market.

Indeed, in the ever-evolving landscape of education, the tension between fostering global competence and respecting diverse cultural, religious, and socio-economic contexts remains a critical challenge. This dilemma between promoting global competence and accounting for diverse cultural, religious, and

socio-economic contexts in assessing students in PISA within ICESCO member states presents a multifaceted challenge. On one hand, PISA aims to assess students' readiness for the globalized world by measuring their proficiency in reading, mathematics, and science literacy, as well as broader competencies like problem-solving and critical thinking. This emphasis on global competence reflects the interconnected nature of today's society, where individuals must navigate diverse cultural landscapes and collaborate with people from different backgrounds³.

However, assessing global competence in the context of ICESCO member states requires careful consideration of the unique cultural, religious, and socio-economic factors that shape students' learning experiences. Islamic countries often have distinct educational systems, curriculum frameworks, and pedagogical approaches that reflect their cultural and religious values. For example, education may prioritize the teaching of Quranic studies, Arabic language proficiency, and Islamic ethics alongside academic subjects.

Addressing this dilemma requires striking a balance between promoting global competence and respecting the cultural, religious, and socio-economic contexts in which students learn. One approach is to integrate culturally relevant content and examples into PISA assessments to ensure that questions resonate with students' lived experiences and cultural backgrounds. This could involve incorporating texts, scenarios, and problem-solving tasks that reflect Islamic values, traditions, and societal norms.



2. The Future of Jobs Report 2023. (May 2023.). World Economic Forum. Retrieved March 22, 2024, from <https://www.weforum.org/publications/the-future-of-jobs-report-2023/>

3. OECD (2019), PISA 2018 Assessment and Analytical Framework, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/b25efab8-en>

Furthermore, engaging stakeholders, including educators, policymakers, and community leaders, in the assessment process is also essential for promoting cultural sensitivity and inclusivity. Collaborative efforts to develop assessment frameworks, review test items, and interpret results can help ensure that assessments accurately reflect students' abilities and provide meaningful insights into their educational progress.

Ultimately, addressing the dilemma between global competence and cultural context in PISA assessments requires a nuanced and context-sensitive approach. By acknowledging and respecting the diverse cultural, religious, and socio-economic contexts in which students learn, while also promoting the development of global competence, international large-scale assessments such as PISA can accurately capture students' readiness for the challenges and opportunities of the 21st century⁴.

2. Challenges of cross-cultural measurement in International Large-Scale Assessments

All International Large-Scale Assessments face challenges when it comes to cross-cultural equivalence. An important issue in these studies is that the measurement tools must be culturally and linguistically equivalent; i.e., that there are no biases in the presentation of the assessment material favoring one country's cultural context or language over another. Cultural or linguistic differences in measurement tools may threaten the validity of the results and thus the relevance of these for the participants. PISA is no exception to this challenge as it draws on content that can be found in curricula across the world and seeks to compare student performance across 100 different countries,

Data from recent PISA cycles indicate that while some ICESCO member countries have

made notable progress, others continue to face significant challenges, with student performances generally below the OECD International average in reading, mathematics, and science. This variance signals a critical need for a detailed exploration of the factors influencing student performance on PISA tests within these countries. A closer examination of existing PISA data and educational research suggests that the determinants of educational success in ICESCO member states are multifaceted, encompassing not only economic but also socio-cultural and other systemic factors. For instance, curriculum emphasis, pedagogical approaches, and the value placed on schooling and education within familial and community contexts can significantly impact student learning and achievement. Moreover, the extent to which the skills and competencies measured by PISA align with those valued and emphasized within the educational systems of ICESCO member states is worthy of exploration to confirm PISA's relevance in these contexts.

While PISA affords participant countries the chance to contribute to the creation of its assessments, the reality of this input is starkly uneven (Adams & Cresswell, 2016)⁵. OECD member countries have tended to wield greater sway over this process. PISA may thus inadvertently manifest cultural biases, placing students from Islamic backgrounds at a disadvantage if the content is too Western-centric. Furthermore, in the realm of Islamic education, where the curriculum often balances academic subjects with religious and moral instruction, PISA's primary focus on reading, mathematics, and science may not fully encapsulate the breadth of educational values upheld within these traditions.

The PISA for Development (PISA-D) initiative has marked a significant stride towards more inclusive educational evaluation, bringing the insights necessary to refine the assessment

4. UNESCO. (2017). *Global Citizenship Education: Topics and Learning Objectives*. UNESCO

5. Adams, R. and J. Cresswell (2016), "PISA For Development Technical Strand A: Enhancement of PISA Cognitive Instruments", OECD Education Working Papers, No. 126, OECD Publishing, Paris, <https://doi.org/10.1787/5jm5fb3f85s0-en>.

for more diverse educational settings. By integrating more low- and middle-income countries, PISA-D and the mainstreaming of its outputs in subsequent cycles of PISA has begun to recalibrate its framework to reflect non-Western educational contexts more aptly. It seeks to encompass an expanded variety of socio-economic conditions, languages, and cultural nuances, thus equipping participating countries with more relevant and regionally, sub-regionally and internationally comparable data on student performance. With regard to ICESCO member states, a challenge for PISA is to reflect sufficiently the educational contexts of Islamic cultures, where religious instruction and character development are of paramount importance and sit alongside academic studies in shaping the educational experience. Incorporating this reflection is crucial to ensuring PISA is accessible to and relevant for a greater number of ICESCO member states.

II. Breakdown of the Pilot Project Implementation:

This proposal is for a pilot project that would amend and enhance PISA to better reflect the cultural contexts of ICESCO member states:

I. Study Phase

1. Analyzing and Exploring Local Contexts

The first step in this project would be to conduct three main studies:

- First, an analysis of the PISA results of the participating ICESCO member states since 2000, identifying the key factors that are related to student performance in ICESCO member states, - this will include conducting a comparative analysis of results between the 20- ICESCO member states and other non ICESCO PISA participants to identify any factors which may be particularly relevant or irrelevant for ICESCO member states. ;





- Second, building on the first piece of analysis, an in-depth study of those domains, units and items from PISA 2022 that may be affected by cross-cultural bias in the contexts of participating ICESCO member states, leading to recommendations for ensuring cultural relevance and appropriateness of the measurement instruments for future cycles.
- Third, a study to identify the skills and competencies prioritized by ICESCO member states that are beyond those currently measured by PISA and the barriers to PISA participation (all ICESCO member states).

The three studies would involve extensive analysis of PISA data, literature review about the participation of ICESCO member states in PISA since 2000, interviews with education experts and national PISA teams, and surveys of relevant stakeholders to discuss on the cultural, religious, historical, and socio-economic factors that influence education in ICESCO member states and analyze the key factors that are related to PISA assessment results and participation in PISA by ICESCO member states.

The three studies completed as part of the pilot project would contribute to the contextualization of the PISA assessments for ICESCO member states. By employing a combination of data analysis, surveys, interviews, and direct observations, the studies will extract detailed

insights into the unique educational landscapes, cultural nuances, and systemic challenges facing ICESCO member states and point the way forward for enhancing PISA to make this more accessible to and relevant for all ICESCO member states. The main findings and recommendations of the studies would be brought together in an overview document that also includes a plan for the next phase of the pilot project.

2. Developing an action plan for the future

Based on findings from the pilot project, an action plan will be developed that outlines actionable steps and guidelines to strengthen PISA and support ICESCO member states in improving their educational systems and enhancing their educational outcomes through effective participation in international assessments, such as PISA. The Action Plan would explore two main pathways to adapt PISA for ICESCO member states – mainstreaming the changes to the items in the next PISA cycle (2029) or developing a pilot PISA instrument (similar to PISA-D) for ICESCO member states – or a combination of both. The action plan would also include activities to foster engagement of ICESCO member states in the adaptation of PISA, and build the necessary capacity in ICESCO member states for developing future assessments at the regional and national level.



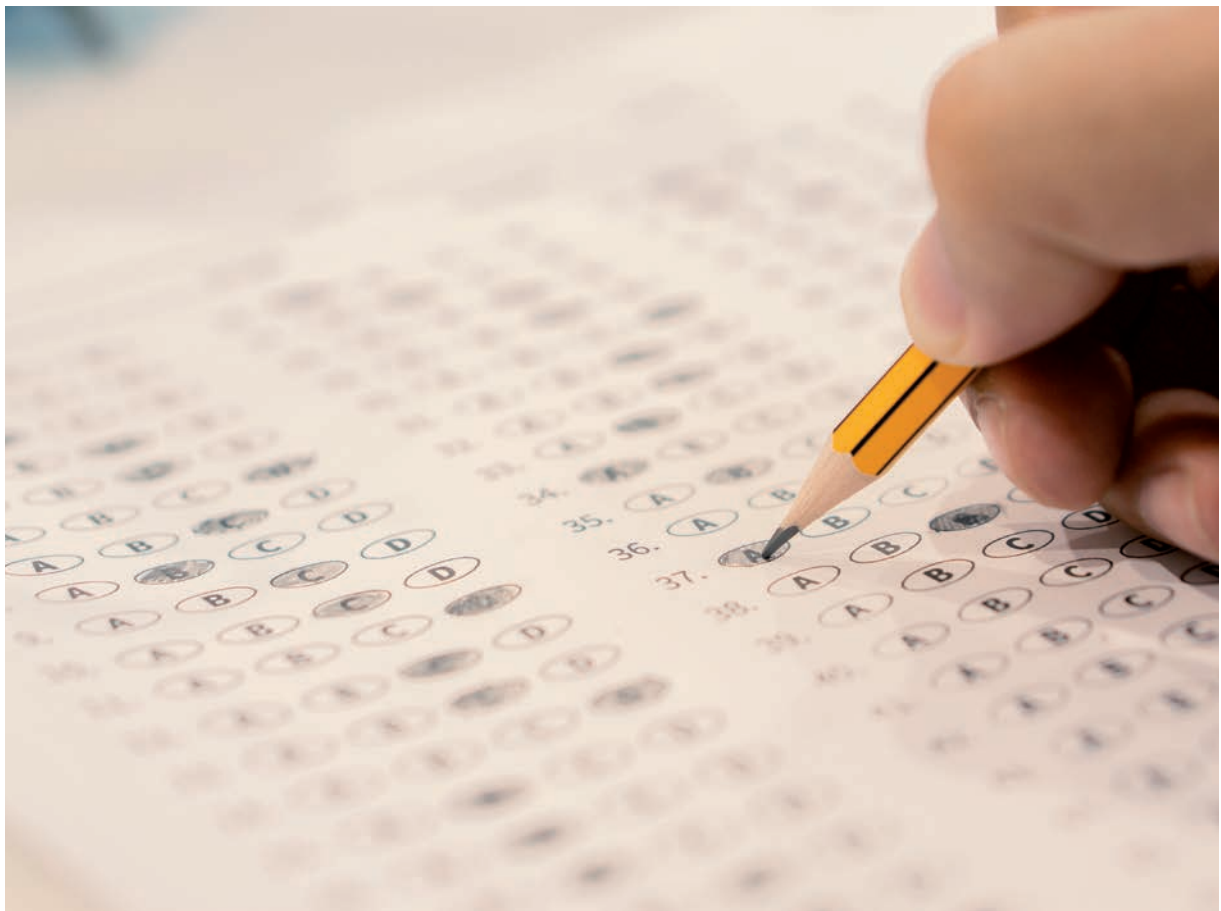
3. Discussing the findings of the studies and action plan during an ICESCO Conference

The OECD and ICESCO would organize a two-day conference to discuss the main findings from each of the three studies as well as the proposed overview document and Action Plan and agree on a course of action for the second phase of the ICESCO-OECD collaboration. The conference would target policymakers from ICESCO member states and could involve participation of other stakeholders (such as teachers, school leaders, etc.) and some OECD member states. If work on the studies starts in the fall of 2024, the conference could be held in 2025, which would enable the mainstreaming of items into the PISA 2029 cycle.

II. Implementation Phase: Mainstreaming and/or Piloting

4. Strengthening the PISA Assessment Framework

Based on the successful completion of the three studies and the outcomes of the conference, and with the consent of all stakeholders, the OECD and ICESCO would incorporate the recommended amendments from the studies in the same way as the PISA-D outputs were incorporated. This could involve modifying the assessment items to be more relevant to the everyday experiences and cultural backgrounds of students from ICESCO member states. It could also involve the incorporation of other skills and competencies that better reflect those capacities, attitudes and behaviors prioritized in ICESCO member states.



5. Engaging Stakeholders and Capacity Building

Concurrently, extensive stakeholder engagement initiatives will be undertaken, including targeted workshops, to ensure broad participation and ownership of the pilot project's implementation. Through collaborative efforts and strategic planning, this pilot project aims to empower ICESCO member states to address identified challenges and capitalize on opportunities for educational advancement, by:

- Launching the development of a capacity-building framework to ensure effective implementation of assessments (international, regional and national).
- Designing and organizing a series of workshops with a critical mass of high-ranking stakeholders the resources and materials necessary for mainstreaming the outputs of the pilot.

6. Pilot Testing an adapted PISA assessment (Optional)

One recommendation of the three studies in the pilot project might be to develop a PISA assessment that was adapted specifically for ICESCO member states. If accepted by ICESCO member states, this assessment would be, like the PISA-D assessment, part of the PISA framework with test scores that could be compared to main PISA on the PISA scale. In this scenario, the adapted PISA assessment would be developed and initially pilot tested in a small number of schools in different ICESCO member states in different regions. The aim of the pilot testing would be to evaluate the validity and reliability of the adapted PISA assessment, its comparability to the main PISA, as well as its acceptability among students and teachers, and decision makers.

7. Evaluation and Refinement of an adapted PISA assessment (Optional)

After the pilot testing, the results would be analyzed to evaluate the effectiveness of the adapted PISA assessment in reflecting local contexts and providing valid results that are comparable to PISA. Based on the evaluation, further refinements would be made to the assessment. If there was sufficient support for it, the refined assessment would then be offered to ICESCO member states as a PISA option and would be implemented on a larger scale.

8. Organizing an International Conference

The International Conference serves as a crucial platform for discussing and disseminating the findings and results of the project, including exchanging best practices and challenges, and fostering collaboration among stakeholders involved in implementing and developing PISA assessments in ICESCO member states. Lessons learned from the project can be also shared with international organizations and policymakers to guide future efforts in adapting assessments to diverse cultural contexts.

It can focus on:

- Facilitating dialogue and exchange of ideas among policymakers, educators, researchers, and other relevant stakeholders from ICESCO member states and global contexts.
- Showcasing successful initiatives, innovations, and strategies in developing PISA assessments to suit the specific socio-cultural and economic contexts of ICESCO member states.
- Providing a forum for discussing challenges, opportunities, and potential solutions related to the integration of local contexts in educational assessments.



III. Detailed Outline of the Proposed Pilot Project:

a) General Objective:

Enhance PISA assessments to better reflect the cultural, linguistic, socio-economic and historical contexts of ICESCO member states.

b) Specific Objectives:

- Analyse the PISA results of the participating ICESCO member states since 2000, identifying the key factors that are related to student performance in ICESCO member states, - this will include conducting a comparative analysis between the 20- ICESCO member states and other non ICESCO PISA participants for specific domains, units and items that may indicate cross-cultural bias. ;
- Building on the first piece of analysis, study in depth those domains, units and items from PISA 2022 that may be affected by cross-cultural bias in the contexts of participating ICESCO member states and make recommendations for ensuring cultural relevance and appropriateness of the measurement instruments for future cycles.
- Identify the skills and competencies prioritized by ICESCO member states that are beyond those currently measured by PISA and the barriers to PISA participation.
- Prepare a plan for adapting PISA assessments to better reflect the cultural, linguistic, and socio-economic contexts of ICESCO member states.
- Improve the validity and relevance of PISA for ICESCO member states by incorporating culturally sensitive content and contextualized scenarios in the PISA assessment; either by mainstreaming these in PISA and/or by developing and piloting an adapted PISA assessment for ICESCO member states.



IV. Estimated Budget and Timeline

- Identify best practices and challenges associated with administering a more accessible and relevant PISA assessment in diverse educational settings within ICESCO member states.

c) Target Population:

- Secondary school students (age 15) in a representative sample of schools across Islamic countries.
- Teachers, school administrators, parents, decision makers, academics, and community members involved in the pilot project implementation.
- Policymakers from ICESCO member states

A detailed and carefully constructed budget for a pilot project aimed at contextualizing PISA assessments within ICESCO member states will include a variety of critical components. Each of these components needs to be thoroughly reviewed, discussed, and agreed upon by all involved stakeholders to ensure that the budget reflects the collective priorities and objectives of the project. The budget will be closely tied to the findings from relevant studies and crafted within the framework of the action plan, ensuring it is both responsive to the data and aligned with the broader strategic goals. This budget will play a crucial role in guiding this project's implementation, providing a clear financial roadmap to achieve the desired outcomes.





     
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