

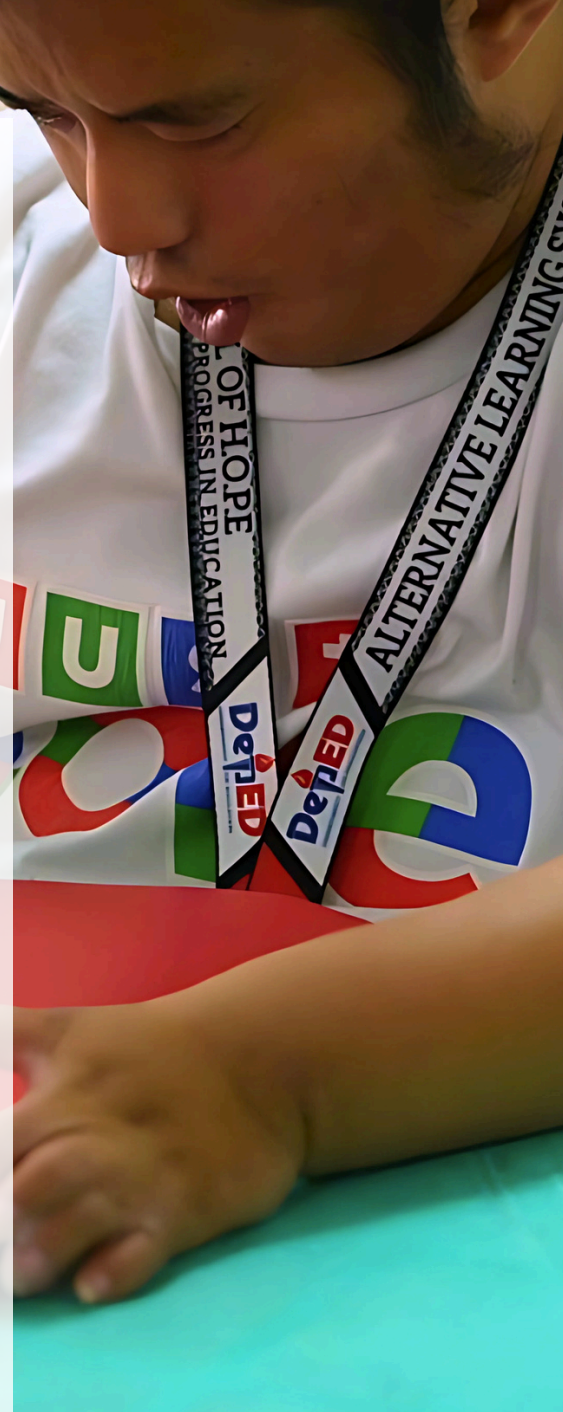


**NATIONAL
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Assessing 21st Century Skills in the Alternative Learning System Setting:

A Conceptual,
Praxeological, and Socio-
Emotional Perspective

Research Report Developed by the
National University under the **SEAMEO
INNOTECH Research Partnership Grant**



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SEAMEO INNOTECH
Commonwealth Ave., Diliman, Quezon City 1101, Philippines Contact:
info@seameo-innotech.org
www.seameo-innotech.org

National University (Philippines)
551 M.F. Jhocson St., Sampaloc, Manila 1008, Philippines
Contact: info@national-u.edu.ph
Website: <https://national-u.edu.ph>

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Lead Authors: Jessie Barrot, Arnold Eniego, Denson Acomular, Leo Del Rosario, Richmond Charles Viray

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Acronyms and Abbreviations

A&E	Accreditation and Equivalency
ALS	Alternative learning system
DepEd	Department of Education
LAC	Learning action cell
LGU	Local government unit
NCR	National Capital Region
OSYA	Out-of-school youth and adults
P21	Partnership for 21st century skills
SEAMEO	Southeast Asian Ministers of Education Organization
SEAMEO INNOTECH	Southeast Asian Ministers of Education Organization – Regional Center for Educational Innovation and Technology

Foreword

Many learners in Southeast Asia continue to face different layers of marginalization. In spite of geographical, disability, gender, socio-economic, and ethnolinguistic barriers, education systems must evolve to provide responsive solutions that will make education inclusive and equitable for all.

Education should strive to empower learners to navigate different realities and help them grow and flourish. Having 21st-century skills enables learners to thrive in society and meet the demands of an ever-changing world. More than ever, teachers are called to develop these skills among their students. The Programme for International Student Assessment (PISA) and the Southeast Asia Primary Learning Metrics (SEA-PLM) results brought the assessment of 21st-century skills to the forefront. Due to varying perspectives on assessing and monitoring 21st-century skills, SEAMEO INNOTECH, through the Research Partnership Grant, saw the need to investigate this topic to help understand its implementation in diverse, multicultural, and marginalized contexts.

In the Philippines, one setting where 21st-century skills are being enhanced is the Alternative Learning System (ALS). The acquisition of 21st-century skills was further highlighted with the addition of Learning Strand 6 on Digital Literacy in the K to 12 Basic Education Curriculum for ALS. Despite being marred by limited resources and addressing the challenging learners' realities, ALS teachers often had to be creative in teaching and assessing 21st-century skills.

Brought to completion in 2024, this report entitled "Assessing 21st Century Skills in the Alternative Learning System Setting: A Conceptual, Praxeological, and Socio-Emotional Perspective" examines how ALS teachers think, feel and do assessments of these skills. The study brought the spotlight to conducting collaborative, integrative, and authentic assessments of 21st-century skills, given the unique set-up of this alternative mode of delivering education to learners facing marginalization. The research hopefully gives its readers insight into possible reforms in the policy and practice of ALS.

I congratulate the National University for completing this research project, under the Research Partnership Grant of SEAMEO INNOTECH. I value the partnership we had with this research project. May both of our organizations continue to pursue purposeful and impactful research for the betterment of learners in the Southeast Asian region and beyond.

Majah-Leah V. Ravago, PhD

Centre Director
SEAMEO INNOTECH

Preface

As the President and Chief Executive Officer of National University, I am honored to present this research project, "Assessing 21st Century Skills in the Alternative Learning System Setting: A Conceptual, Praxeological, and Socio-Emotional Perspective." This project, spearheaded by Dr. Jessie S. Barrot as the principal investigator, along with his research collaborators—esteemed faculty members of National University from the College of Education, Arts and Sciences: Dr. Arnold Eniego, Mr. Denson Acomular, Dr. Leo Del Rosario, and Mr. Richmond Charles Viray—underscores our unwavering commitment to advancing educational research and innovation, not only within the Philippines but also across Asia. Generously funded by SEAMEO INNOTECH, this initiative reflects our dedication to producing quality research that addresses the evolving needs of our society.

National University has always been at the forefront of educational excellence, striving to produce groundbreaking research that addresses the demands of our society. This particular study is a testament to our dedication to improving the quality of education in diverse and challenging contexts. The Alternative Learning System (ALS) in the Philippines represents a crucial avenue for reaching marginalized learners, providing them with the skills and knowledge necessary to thrive in the 21st century. However, the unique circumstances of ALS students and the constraints of resources and infrastructure pose significant challenges to effective teaching and assessment.

In response to these challenges, our research team embarked on an in-depth exploration of how 21st century skills are assessed in ALS settings. By examining the conceptual, praxeological, and socio-emotional dimensions of ALS teachers' assessment practices, this study provided a comprehensive understanding of the beliefs, attitudes, competencies, and classroom practices that shape assessments.

The insights gained from this study are invaluable for shaping future educational policies and practices. The recommendations provided, ranging from professional development to technology integration, aim to enhance the effectiveness and inclusivity of ALS programs. As we move forward, the National University remains steadfast in its mission to lead in educational research, fostering innovations that bridge educational gaps and empower all learners to succeed.

I extend my deepest gratitude to SEAMEO INNOTECH for their support and to our dedicated researchers for their unwavering commitment to this important work. Together, we continue to pave the way for a brighter, more inclusive future in education.

Dr. Renato Carlos H. Ermita Jr.
President and Chief Executive Officer
National University, Philippines

Acknowledgment

We extend our heartfelt gratitude to the following individuals and organizations whose invaluable assistance and support have made this study possible:

Our sincere thanks go to the Department of Education National Capital Region (NCR), Region IV-A, Region VII, and Region XI for their assistance and for accommodating our researchers throughout the study. Their cooperation and logistical support were crucial in ensuring the smooth execution of our fieldwork and data collection.

We are deeply grateful to the ALS teachers and school heads for their active participation and unwavering support. Their dedication and commitment to the study were instrumental in gathering comprehensive and meaningful data, which significantly contributed to the successful completion of this research.

A special acknowledgment goes to SEAMEO INNOTECH and National University (Philippines) for their generous co-funding of this project. Their financial support enabled us to undertake and complete this study, providing the necessary resources to achieve our research objectives.

We thank the research review team and staff of the Educational Research Unit of INNOTECH for their expertise, guidance, and support that greatly enhanced the quality of our research. They include Dr. Sherlyne A. Almonte-Acosta (Head), Erlene G. Umali, Katherine P. Torralba, Hiyas S. Clamor-Torneo, Jailyn N. Puerto-Mar (former staff), Dr. Christian Leubert C. Milambiling (former staff), and Jocelyn C. David (project support). We are also thankful to Mr. Jelico Arriescado and Ms. Mary Margarette Crisostomo, for the layout of the research reports. We also wish to thank SEAMEO INNOTECH leaders, including Dr. Majah-Leah V. Ravago, (Centre Director), Prof. Leonor Magtolis Briones (Former Centre Director), Dr. Diosdado M. San Antonio (Manager of Educational Research and Innovation Office), Atty. Ira Paulo Pozon (Manager of Legal, Policy, and Quality Management Office) and Atty. Christopher Lawrence Arnuco (Manager of Knowledge Management and Networking Office) for their unwavering support and invaluable assistance.

Our appreciation extends to the Department of Education Central Office for their overarching guidance and policy support. Their leadership and strategic direction facilitated the smooth execution of our research activities, aligning our study with national educational priorities. Their contributions have been instrumental in the success of this study, and we are deeply appreciative of their commitment and support. We thank them for their dedication and partnership.

Executive Summary

Background

The Philippine educational system is adopting a 21st century learning program as one of its frameworks for mainstream and alternative education. It is also known as the Alternative Learning System (ALS). While it is already challenging to realize 21st century learning and its assessment in mainstream classrooms, ALS settings have become more challenging through the years due to the unique circumstances of the students and limited resources and infrastructure. Since teacher quality is one of the determinant factors in assessing ALS skills, looking into these teacher's beliefs, attitudes, competencies, and classroom practices merits attention. Thus, this study aims to examine the conceptual, praxeological, and socio-emotional dimensions of ALS teachers' assessment of 21st century skills to better understand their classroom assessment beliefs and practices.

Methodology

This study employed a comparative multiple case study for a more in-depth understanding of how and why teachers assessed 21st century skills within the ALS context. A total of 32 secondary-level teachers from eight government-funded ALS sites in the National Capital Region (NCR), Region IV-A, Region VII, and Region XI (i.e., two ALS sites per region) were involved in this study. To describe in depth the specific features of each case, this study used multiple data sources, such as interviews and direct observation. Qualitative data underwent cross-case thematic analysis to identify common themes and patterns across data.

Key Findings

This study revealed several key themes. Teachers view assessment as multidimensional, integrating both quantitative and qualitative methods to cover a broad range of real-world skills. Collaboration is essential, involving students, colleagues, parents, and community members to enhance the educational experience. The assessment methods are adaptive, integrative, performance- and portfolio-based, and authentic, reflecting real-world applications and focusing on continuous student reflection. Socio-emotional aspects are managed through collaboration, differentiation, multifaceted roles, trust-building, and motivational strategies, creating a supportive and personalized learning environment.

Conclusion

This study highlights the critical role of ALS teachers in bridging educational gaps and addressing the socio-emotional needs of marginalized learners through thoughtful and context-sensitive assessment practices. Our study revealed that the assessment of 21st century skills in the ALS context is a multidimensional approach that integrates both quantitative and qualitative methods. This approach aligns well with the diverse needs of ALS learners. The collaborative, principles-driven, and future-ready-centric nature of their practices highlights their commitment to preparing students for future challenges while fostering an inclusive learning environment. Despite their innovative practices, ALS teachers faced challenges due to limited resources, theoretical training, and systemic marginalization. Practical implications include leveraging diverse assessment techniques, providing personalized feedback, and fostering supportive learning environments to improve student outcomes.

Recommendations

The findings lead to several policy recommendations. Firstly, developing a comprehensive assessment framework with standardized yet flexible tools is essential for a well-rounded evaluation. Secondly, strengthening collaborative practices among teachers, parents, and community members through regular LAC sessions and community workshops is crucial. Thirdly, emphasizing socio-emotional learning (SEL) by integrating it into the curriculum and providing resources for mental health and communication training will support students' well-being. Additionally, promoting adaptive and inclusive assessment practices that cater to diverse learning needs, including real-time adjustments and accommodations, is necessary. Increasing the use of technology in assessments, alongside providing the necessary infrastructure and training, is vital. Aligning curriculum and assessments with future-ready skills, partnering with industries, and ensuring ethical considerations and confidentiality in assessments are also important. Furthermore, resource allocation and support from local governments and community organizations will address resource constraints. Finally, implementing robust feedback mechanisms and fostering a culture of continuous improvement will enhance the effectiveness of ALS assessment practices, ensuring they meet the needs of 21st-century learners.



4 Kisetsu season
fujuu winter → Mar. Feb. hidari ←
aki fall, autumn - Sept
haru spring - march - 11
natsu summer - July
takushi / tabem
oai nomida
ku
Sukunari - few
Sukushi - little

PART 1

Introduction

We have witnessed in recent years the expanding cultural diversity, globalization, and adoption of technology, which have transformed traditional learning into 21st century learning (Silber-Varod et al., 2019; So & Kang, 2014). This pedagogical concept refers to the core competencies that educational institutions need to develop among students to help them thrive in today's ever-changing and highly complex society (Educational Testing Service, 2007; Geisinger, 2016; PPRC, 2010). It also requires some changes in the curricula, so that students develop the target competencies that they need in the 21st century (Barrot, 2019). However, the focus should not be solely on what these competencies are but also on how and when these competencies can be best acquired. This suggests the important role of teachers in facilitating the acquisition of 21st century skills. In fact, initial data revealed that when teachers understand a specific 21st century skill, they become more effective in cultivating that skill in students (Lucas, 2016). Thus, the changes in the way students learn require new ways of teaching. It involves identifying the skills, defining, and organizing them into a coherent system, developing or recalibrating curricula, choosing the right instructional approaches and materials, and assessment strategies (Geisinger, 2016).

Although 21st century learning has permeated the educational systems and practices, its implementation is not without any problems. According to Saavedra and Opfer (2012), many students failed to learn 21st century skills because of the dominance of the transmission model in which teachers transmit knowledge to students through lectures. Second, teachers tend to place 21st century skills in the background even if they claim they adopt a constructivist approach. Finally, these skills are more difficult to assess than factual knowledge. Care and Kim (2018) and Greiff and Kyllonen (2016) reiterated the difficulties of how these skills can be effectively and meaningfully assessed, scaled, and scored and what practical use these assessments will have. Consequently, there is a dearth of studies that explored how teachers assess 21st century skills in the classroom to promote the development of these skills.

One country that has incorporated 21st century learning into its national education systems is the Philippines, where a framework for mainstream and alternative education is being used (Hence, Alternative Learning System or ALS). ALS is a humanistic and constructivist type of education that operates outside the traditional K-12 system for out-of-school youth and other marginalized groups (Kraftl, 2014; Lehr & Lange, 2003). While it is already challenging to realize 21st century learning and its assessment in mainstream classrooms (Griffin & Care, 2014; Marzano & Heflebower, 2011), it becomes more challenging in ALS settings due to the unique circumstances of the students (e.g., adult working students, students with special needs, and youth-at-risk) and limited resources and infrastructure (Hero, 2022; Tindowen et al., 2017). Since teacher quality is one of the determinant factors in assessing these skills, looking into their conception, attitudes, and classroom practices merits attention. However, teachers face challenges in facilitating the acquisition of these skills in their students and acquiring the skills for themselves (Geisinger, 2016). Thus, this study examines the conceptual (teachers' understanding), praxeological (classroom practices), and socio-emotional (social and emotional impact) dimensions of ALS teachers' assessment of 21st century skills to better understand their classroom assessment beliefs and practices. This study hopes to provide a comprehensive analysis of ALS teachers' beliefs and practices related to assessing 21st century skills in order to identify gaps and areas for improvement in assessment strategies. Our study also hopes to inform policymakers and curriculum developers about the current state of assessment practices in ALS to create policies and curricula that better support the development of 21st century skills among marginalized groups of learners.

PART 2

Literature Review

21st Century Skills

The emergence of new forms of literacy and technologies has led to a new set of competencies called 21st century skills. These skills are critically important to succeed in today's world, particularly in collegiate programs and contemporary careers and workplaces (Griffin & Care, 2014). Their development involves a range of educational strategies that go beyond the traditional focus on core subjects to help students navigate complex life and work environments. The need to develop these new set of skills is prompted by the increased technology adoption, globalization, and internationalization that influence how we work, live, and learn. Several models have been proposed to address the implementation of 21st century skills. These are EnGauge, Assessment and Teaching of 21st Century Skills (ATCS), National Educational Technology Standards (NETS), Technological Literacy Framework for the 2012, National Assessment of Educational Progress (NAEP), and Partnership for 21st century skills (P21). All these frameworks share the same understanding of what 21st century skills are and their inclusion in the curriculum.

Of these frameworks, P21 is not only the most widely utilized, but also one of the few that emphasizes the quality of teaching and learning (Voogt & Roblin, 2010). Drawing primarily from the P21 framework, this study explores its comprehensive approach which advocates for a holistic education system that aligns with 21st century standards. P21 subscribes to the following teaching and learning principles (The Partnership for 21st Century Learning, 2015). First, students need to master key subjects and 21st century themes to succeed. These themes include global awareness, financial, economic, business and entrepreneurial literacy, civic literacy, health literacy, and environmental literacy. Second, students develop learning and innovation skills. These skills include critical thinking and problem-solving, creativity and innovation, communication, and collaboration. Third, students should exhibit a wide range of information, media and technology skills, which include information literacy, media literacy, and information and communication technology (ICT) literacy. Fourth, students need to develop essential life and career skills, namely flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility. Fifth, educational systems should align with 21st century standards by focusing on 21st century skills, content knowledge and expertise, emphasizing deep understanding, building cross-curricular understanding, engaging students with real-world experience, and using multiple measures of mastery. Finally, assessment of 21st century skills should support a balance of summative and formative assessment, emphasize relevant and timely feedback, and promote the use of portfolios.



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Alternative Learning System in the Philippines

Alternative education consists of all education programs that are different in nature from the usual K-12 school structure like charter schools, preparatory programs for general educational development examination, homeschooling, or a unique program for gifted children, among others (Aron, 2003). It provides support and a venue for students with behavioral issues, learning disabilities, poor attendance, or those failing in their academics to experience and learn through innovative learning strategies in an uncommon environment (Aron, 2006).

One form of alternative education being offered in the Philippines is the Alternative Learning System (ALS). Republic Act No. 11510, or the Alternative Learning System Act, declared that the state should ensure that education is accessible to all and pay attention to the needs for learning of out-of-school youth and adults (OSYA) while considering their situations in life. The Department of Education (DepEd) provides three programs for ALS: (1) the Basic Literacy Program, whose aim is eliminating illiteracy in writing, numeracy, and reading in OSYA, (2) the Accreditation and Equivalency (A&E) Program, whose aim is to help literate OSYA who did not finish the K-12 basic education acquire basic education qualifications, and (3) the Life Skills for Work Readiness and Civic Engagement Program whose aim is to assist young people in landing a job, become business minded or use their skills to contribute to their community by aligning the skills they learned in school and the skills needed in the workplace (DepEd, 2023). In 2022, DepEd reported that ALS enrollment from 2016 to 2021 has reached the four million mark (DepEd, 2022). With this, challenges in the implementation of ALS are reported and include (1) demand-side challenges which consist of enrollment rates, ALS outcomes, opportunity cost for learners, and determinants of ALS enrollment and performance, and (2) supply-side challenges which comprise of operating expenses for ALS facilitators, learning modules, and quality of learning environment (Igarashi, 2018).

In the Philippines, ALS programs are conducted by learning facilitators, who come from diverse backgrounds. This group includes teachers hired directly by the DepEd specifically for ALS (ALS coordinators and mobile teachers), regular school teachers, volunteers who receive small allowances from DepEd, and teachers funded through alternative sources. They deliver ALS interventions over a structured 10-month period, which begins with the administration of the Functional Literacy Test (FLT) that assesses the learners' competencies. Following the completion of a program cycle, learning facilitators conduct community mapping exercises. These exercises are designed to identify and reach out to potential ALS participants who may benefit from the program. This proactive approach ensures that the program is inclusive and reaches a wide audience. Although enrollment for ALS begins in January, it remains open throughout the year to allow continuity for those with varied and unpredictable schedules.

There have been studies on the implementation of alternative education in the Philippines (Arciosa et al., 2022; Mehra et al., 2021; Salendab & Cogo, 2022) and other territories (Kim & Taylor, 2008; Mills & McGregor, 2013). These studies have provided evidence of the success of this program across geographical contexts and offered suggestions for further enhancing its implementation. Meanwhile, few studies reported teachers' experience and involvement in alternative education implementation. Kim and Taylor (2008) found that teachers felt marginalized and treated as low-caliber educators in terms of communication channels and school involvement.



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This problem resonated with Igarashi (2019) who reported that, unlike mainstream teachers, ALS teachers in Southern Philippines lacked in-service training opportunities and often paid for their own professional development activities. There were also a limited number of ALS teachers that contributed to the challenge of expanding ALS in the area. While these studies provided useful information, ALS teachers were not their main focus. This limited information impairs our ability to gain a clear picture and nuanced understanding of their assessment practices and experience. Without detailed exploration, these studies fell short of capturing the complex and varied approaches ALS teachers use to assess students, particularly 21st century skills. This gap highlights the need for more thorough research on what they think, do, and feel as regards assessing 21st century skills. To this end, the following research questions were addressed:

- 1. What conceptions do teachers have when assessing 21st century skills?**
- 2. How do teachers integrate 21st century skills with their assessment practices?**
- 3. How do teachers manage the socio-emotional dimension of assessment?**

PART 3

Research Framework

This study is theoretically anchored in Pastore and Andrade's (2019) three-dimensional model, which argues that teachers' approach to designing and implementing assessment is a product of interaction among their knowledge, skills, and disposition. As a socio-constructivist model, Pastore and Andrade's (2019) model identifies three interrelated dimensions of assessment practices, namely the conceptual knowledge, praxeological, and socio-emotional dimensions. The extent to which one dimension is given priority depends on the ingrained realities of a country, educational system, school, and classroom. The conceptual knowledge dimension explores teachers' understanding of assessment, teaching, and learning. It probes into what assessment is, reasons for doing assessment, areas to be assessed, mode of assessment, and ways of analyzing assessment data. The praxeological dimension refers to how teachers navigate assessment in the classroom and integrate it with their teaching practices. Specifically, it involves defining learning objectives and assessment criteria, choosing appropriate assessment strategies and tools, gathering and interpreting assessment information, utilizing assessment information to adjust instruction and curriculum, providing feedback to students, engaging with relevant stakeholders (e.g., students, parents, school leaders, and other teachers) on assessment information, supporting students in using assessment data to regulate their learning, and communicating assessment information to key stakeholders. Finally, there is the socio-emotional dimension that relates to the social practice of assessment. This dimension explores how effective teachers are in working with key stakeholders to establish a shared sense-making of assessment practices and improve these practices to promote learning among students. It also deals with the ethical aspects of assessment, the impact of assessment on student engagement and teacher-student relationships, and how conscious the teachers are of their role as assessor and issues of rights, responsibilities, and trust. Furthermore, the last dimension explores students' emotional dynamics and dispositions (e.g., persistence, anxiety, and resistance) that can shape learning.



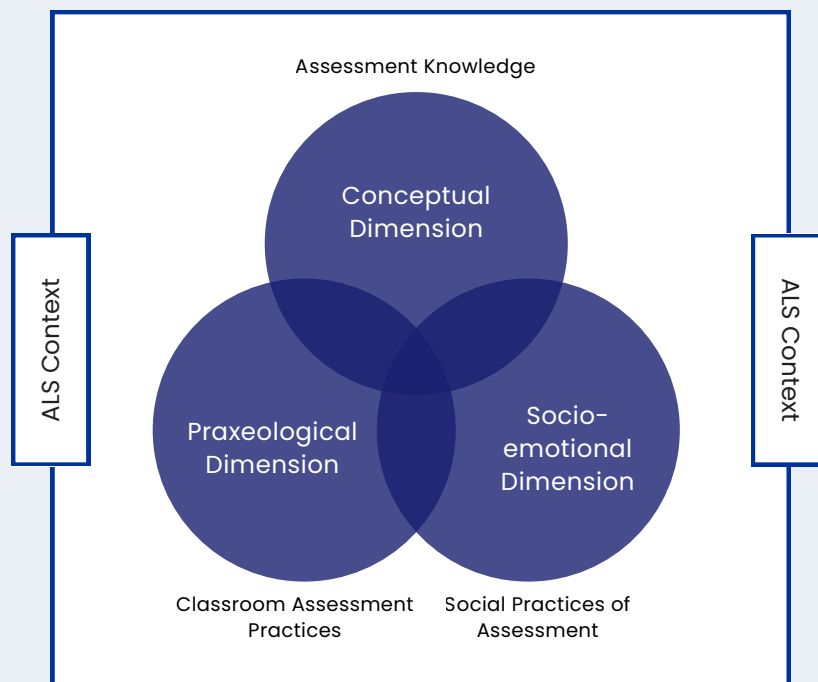
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The three dimensions and their description guided us in focusing our research questions and developing the instruments for data collection to clearly understand ALS teachers' approach to assessing 21st century skills. Pastore and Andrade's model is well-suited to the ALS context because it offers a flexible, comprehensive framework that respects the complexity of alternative educational environments and the diverse needs of learners. It supports the development of assessment practices that are not only effective in terms of academic performance but also considerate of the broader, critical influences on learning such as socio-emotional factors. Figure 1 presents the three dimensions of assessment literacy within the ALS context.

Figure 1.
Conceptual Framework



A woman with long dark hair and glasses is shown in profile, pointing her right arm towards a whiteboard. The whiteboard is covered with handwritten notes and diagrams. The entire image has a blue color overlay.

PART 4

Methodology

Context and Participants

We employed a comparative multiple case study for a more in-depth understanding of how and why teachers assessed 21st century skills within the ALS context. This approach allowed us to synthesize the patterns, similarities, and differences across multiple cases that shared common experiences in and understanding of assessing 21st century skills. A total of 32 teachers from eight government-funded ALS sites in the National Capital Region (NCR), Region IV-A, Region VII, and Region XI (i.e., two ALS sites per region) were involved in this study. Although their representativeness might be limited, they shared the typical features of other ALS Centers in the Philippines in terms of student ethnic diversity, resources, governance structure, and instructional processes as required by the leading government education agency. Using purposive sampling, the following inclusion criteria were used for both the interview and observation: (1) should be teaching in an ALS setting for at least two years and (2) handling out-of-school youth and adults not enrolled in elementary and secondary schools due to social, political, cultural, and economic barriers. The two-year experience was based on the findings that teachers gain sufficient pedagogical knowledge during the first two years of teaching (Clotfelter et al., 2007).

Instruments and Data Collection

To describe in depth the specific features of each case, this study used multiple data sources, namely, interviews and direct observation. A semi-structured interview was used to determine the teachers' understanding, practices, and socio-emotional elements of assessing 21st century skills. The interview guide was divided into two sections: teachers' profile section and main questions section. The teachers' profile section covered their name, gender, age, school name, length of teaching in the ALS setting, educational attainment, and school designation. The main questions section asked the conceptions they have about assessing 21st century skills, how they practiced the assessment of 21st century skills, and how they managed the socio-emotional aspect of assessing these skills.

Direct observation was used to triangulate or confirm teachers' statements during the interview. Through direct observation, researchers verified and strengthened answers to questions by eliminating alternative explanations, ruling out weak suppositions, and clarifying diverging patterns. It also helped overcome any biases that come from a single informant. Each teacher was observed at least two times to complete one entire module. An observation guide was used to guide the researchers during the observation. A lesson plan was obtained from the teachers prior to the scheduled visit to facilitate the observation. Similar to the interview, the observation focused on how their conceptions about assessing 21st century skills were reflected into teaching practices, how they integrated 21st century skills with their assessment practices, and how they managed the socio-emotional aspect of assessing 21st century skills. During the observation, researchers wrote their analytic observation notes to obtain an emic perspective of teachers' practices in the classroom. Both the interview guide and observation guide underwent evaluation by two experts to ensure their validity.

Data Analysis

Interview transcripts underwent cross-case thematic analysis to identify the common themes and patterns across data. This was done through cyclic iteration of reading, comparing, interpreting, and coding the transcripts of teachers who participated in the interview (Aesaert et al., 2013). First, we analyzed the interview transcript of Teacher 1 and identified the responses that addressed each of the research questions, which serve as the main themes. Thereafter, we combined conceptually related ideas to create the subthemes under each main theme. The researchers, then, proceeded to analyze Teacher 2 transcript and combine its subthemes with the previous coded data. This progressive and dynamic interplay between coding and analysis was repeated until all 32 transcripts were analyzed and coded. The same iterative approach was done when analyzing data from the observation. After all the interview and observation data were analyzed, we compared the two data sets and identified any gaps between what teachers intended to do and what they actually did. A cross-case data display matrix was constructed to facilitate the analysis (Miles & Huberman, 1994). Moreover, intercoding was performed to ensure the rigor of analysis.



PART 5

Findings

This study examined teachers' experience in assessing 21st century skills within the ALS context. Our investigation focused on teachers' conceptions of assessing 21st century skills, how they practiced assessment, and how they handled its socio-emotional aspect. To address these objectives, we identified the themes that emerged from each of the dimensions of assessment literacy.

How teachers conceive the assessment of 21st century skills

Multidimensional

Data from the interview reveal several themes about ALS teachers' conception of assessing 21st century skills. First among them is its multidimensionality, which refers to the comprehensive and varied nature of the evaluation process as perceived by ALS teachers. Teachers within the ALS conceive the assessment of 21st century skills as a multidimensional process that encompasses a wide range of knowledge and skills relevant to real-world contexts. This is illustrated by their diverse definitions of assessment. For instance, T23 defined assessment as a means to "evaluate, measure, and document student learning progress, skill acquisition, or educational needs." This conception is shared by several teachers, including T3, T21, T19, and T28. In contrast, other teachers primarily associate assessment with measuring students' knowledge, with T15 describing it as "a test or a tool to know the knowledge of the students," a sentiment echoed by T5, T8, T10, and T26. Unique among the responses, T9 emphasized the importance of assessing the emotional dimension of learning, stating that assessment "is not just by hear, it also involves the assessing of their emotions, not just by understanding, more on their emotions how they are going to handle their emotions, before they can understand."

The assessment processes utilized by ALS teachers incorporated both quantitative methods, such as rubrics and quizzes, and qualitative approaches, including observations, portfolios, and student reflections, to provide a comprehensive evaluation of students' competencies. T17 pointed out that assessment should involve diverse forms such as quizzes, artwork, and performances. Teachers also mentioned various purposes for assessing students, including diagnostic (T5, T13, T18, T21, T32), formative (T3, T5, T8, T19), and summative (T14, T22, T27). They noted that the process typically begins with diagnostic assessments to determine a student's baseline competencies, guiding personalized learning paths and monitoring progress, and culminates in summative assessments to gauge students' achievements at the end of the program. Regarding the specific competencies assessed, teachers aimed to cover a broad set of 21st century skills. As T21 noted, it is crucial to highlight problem-solving skills, life skills, information and technological literacy, critical thinking, collaboration and teamwork, and leadership qualities.

Collaborative

Another conception of how ALS teachers assess 21st century skills centers around collaboration, a process through which teachers, students, colleagues, parents, and community members engage in cooperative activities and share information to enhance the educational experience. It manifests in several key ways. Firstly, teachers facilitated collaborative student activities that require teamwork, such as peer assessments (T9), sharing (T13), and project-based learning (T25). They considered these collaborative activities to be helpful in improving communication skills, conflict resolution, and teamwork, as noted by T23. Secondly, ALS teachers frequently collaborated with colleagues as their source of information when assessing students' 21st century skills. For instance, T4 and T8 engaged in sharing best practices with their colleagues. This kind of collaboration extends beyond the school, involving parents and community members to get relevant information about the students, especially during enrolment. As pointed out by T5, "upon enrolment in ALS, we also do data gathering including parent information." In the case of collaborating with the community, T11 shared that she did some mapping and went to the barangay to get information about the students. Lastly, in the ALS setting, students are considered valuable sources of information. Teachers asked students to fill out personal information sheets and interview them as soon as they came to class, as in the case of T10. This collaborative approach not only enhanced the richness of assessment-relevant information but also built a supportive learning community for ALS students.

Part of the collaboration is ALS teachers' sharing of assessment results with the different stakeholders. Nearly half of the teachers directly shared the assessment results with students, providing them with feedback on their progress and areas for improvement. For instance, T3 shared the assessment results with her students after completing their initial portfolio so they would know their progress and enhance this portfolio. Teachers also reported these results to their co-teachers, particularly those who would handle the students to the next level, as noted by T12. Sharing results with co-teachers also helped maintain a cohesive and coordinated ALS environment. By informing the parents of their children's progress, teachers bridged the gap between home and school. This engagement helped parents understand their child's learning progress and encouraged them to support their learning at home. Finally, ALS teachers reported assessment results to school and division heads, who oversee and monitor ALS implementation. As mentioned by T14, her ALS supervisor verified and validated the submission of portfolios. Through these diverse reporting practices, ALS teachers ensured that all stakeholders were well-informed and actively involved in the educational process. This practice also fostered a supportive network around students and enhanced both accountability and the overall impact of the ALS program.

Principles-driven

Another theme that emerged regarding ALS teachers' conception of assessing 21st century skills is principles-driven. It refers to the reliance on fundamental assessment principles rather than specific theories or models. When asked to identify models and theories relevant to assessing 21st century skills, only four out of 32 ALS teachers could specify theories they deemed applicable. Teachers T1, T15, and T24 highlighted constructivism as a relevant theory, whereas T4 pointed to multiple intelligences. These responses indicate a potential gap in theoretical knowledge or formal training among ALS teachers regarding the assessment of 21st century skills. Many of these teachers might not have received adequate training in or exposure to theoretical frameworks that guide theory-based assessment practices tailored to 21st century skills.

For the majority of teachers who did not cite specific theories or models, they instead discussed principles they considered relevant. Notably, several teachers emphasized the importance of experiential learning, including T1, T12, T14, and T22, while others cited student-centered assessment practices, such as those noted by T25, T27, and T29. In terms of assessment principles, concepts of validity and authenticity were frequently mentioned, with teachers T8, T17, T23, and T30 discussing validity, and T8, T26, and T30 highlighting authenticity. T8 specifically remarked on the need to ensure the authenticity and validity of presentations and evidence in ALS, stating, "In ALS, we use presentations per unintelligible, so it is crucial to ensure that all evidence is both authentic and valid."

Performance- and portfolio-based

Performance-based assessment is prominent in the ALS classrooms for evaluating 21st century skills. In this type of assessment, students are assessed based on their ability to perform tasks or demonstrate skills in real-world or simulated scenarios, such as role-playing, dramatization, and creative activities. These methods align well with the principles of experiential learning and authentic assessment, which are fundamental to ALS teaching strategies, as highlighted by T1. For instance, T9 views performance-based assessment as a critical measure of how students manage real-life situations and challenges, stating, "This assessment shows how well students can handle life's problems and if they are prepared to face these challenges, which is a marker of its success." Additionally, many teachers underscored the importance of using rubrics to ensure more objective evaluations of these performance tasks (T11, T18, T26, T31). However, reliance on performance tasks is not universal; some teachers employed traditional methods such as paper-and-pencil tests (T1, T11, T15, T17, and T18).

Portfolio assessment is another concept widely endorsed by all ALS teachers for assessing 21st century skills. This approach involves compiling students' best work, either online or in conventional formats. The necessity for students to create a comprehensive portfolio of all their assessment activities stems from it being a completion requirement. Beyond this requirement, teachers recognized the value of portfolios in fostering reflection and self-awareness among students. For example, T17 noted that portfolios helped students identify areas needing improvement. Moreover, teachers like T3, T7, and T14 emphasized the significance of employing a rubric to score portfolios, as these scores are crucial for meeting program completion standards.

Given the focus on performance-based and portfolio assessments within the ALS, it is noteworthy that nearly all teachers did not employ sophisticated statistical or psychometric methods for analyzing assessment data. Instead, they primarily relied on straightforward computational methods, such as averaging, to evaluate student performance. Nonetheless, to ensure the quality of assessment, teachers emphasized the use of a clear rubric and the alignment of learning objectives, assessment activities, and assessment tools. According to T32, “there’s really an assurance that you will be able to achieve, what needs to be achieved” when you use a rubric. T5 added that the assessment should not go outside the learning objectives to ensure the quality and focus of the assessment.

Future-ready-centric

This theme is a novel and specific term that conveys the focus of an assessment system aimed at preparing students for future challenges, aligning with the skills and demands of tomorrow’s world. While it is not a standard term in educational jargon, it captures the essence of prioritizing future readiness in assessment design. Teachers often linked the assessment of 21st century skills directly with the objective of producing students equipped for future challenges and careers. For example, T18 mentioned that students can apply life skills “in times when they will really find the job,” an idea that resonates with T10, T21, T22, and T30. This connection underscores the practical and forward-looking approach that ALS teachers adopt towards assessment. T4 elaborated that a primary focus of the curriculum is on life and career skills, which not only prepares students for professional life but also enhances their personal and social well-being. Similarly, teachers such as T25, T27, T30, and T31 viewed assessment as a tool to help ALS students thrive not only in their careers but also in their personal and social lives.

How teachers assess 21st century skills

Adaptive

This approach dynamically adjusts the type of assessment, difficulty, or content of questions based on real-time student performance. This adaptive approach to assessment granted the teachers the opportunity to tailor the learning experience to their student’s specific needs. During interview and class observation, it was found that teachers regularly adjusted assessments for several reasons, including student age (T17), individual differences (T4), and specific needs (T7, T10, T17, T24, T27, T31). This is especially important in multigrade groups (as mentioned in T9) where assessment methods might be diverse. Several teachers (T4, T21, T28) have encountered situations where students struggled with certain lessons. In response, they adjusted instruction, materials, and assessments to better match the students’ comprehension levels and learning styles. These adjustments aim to better match the students’ understanding and preferred learning styles. For instance, teachers might change the difficulty level of assessments (T9, T15, T17), offer retesting opportunities (T26, T29), or provide translation or assistance during tests (T27, T31). By identifying areas where students need improvement (T1, T2, T3, T6), teachers ensured that, regardless of the assessment method used (T4), they were always measuring the same core skills and competencies.

Integrative

This theme centered on the teacher's method of evaluating student learning that combines different learning styles and skills. This allows students to demonstrate their understanding of 21st century skills in various ways. By creating assessments that mirror real-world scenarios, it requires students to apply knowledge in a meaningful and multidisciplinary context. Teachers used a variety of methods to assess student learning, going beyond traditional tests (T3-T6, T9, T13, T14, T25-T32). This includes discussions, group activities, presentations, analyses of real-world materials like songs and videos, creative tasks, and even quizzes (T1-T32). This approach allowed students to showcase their understanding of 21st century skills in various ways. More importantly, teachers design assessments that mirror real-world scenarios (T4, T6, T9-T11, T17, T25-T32). This requires students to apply their knowledge in a meaningful context, preparing them for situations they might encounter beyond the classroom. Teachers acted as facilitators, guiding students to learn independently (T5). As assessors, they understood the importance of tailoring assessments to individual student needs and learning styles (T11, T21). This involved considering a student's strengths and weaknesses (multiple intelligences - T21) or adjusting the difficulty level based on their observed performance (T9, T29, T30).

Portfolio-based Assessment

This is a preferred method of assessment by teachers who gather evidence of student learning over time through a collection of work outputs and reflections. All teachers in the ALS classes mentioned using portfolios to assess student learning. These portfolios act as a collection of a student's best work, showcasing evidence of achievement for each required competency (T1, T2, T5, T6). The portfolios went beyond just test scores and encompassed a variety of materials (T9, T11, T13, T14, T16, T17, T18, T26, T27, T29, T30). This included class readings, drawings, pictures, personal narratives, and other outputs relevant to the learning objectives. While a clear binder or notebook was often used, students had the freedom to design their portfolios creatively.

Authentic

This theme points towards assessments that require students to think critically, showcase their problem-solving skills in various contexts, and demonstrate how to communicate effectively. The assessment of such skills is relevant beyond the classroom and reflects how knowledge is used in real-world situations. While the term 'authentic assessment' was not explicitly mentioned by teachers, their interview responses and observed practices often reflected this approach (T1, T10, T11, T12, T22, T28). They frequently used performance-based assessments, which involve activities like baking, work immersion, interviews, and entrepreneurship. These assessments went beyond traditional tests and encouraged students to apply their knowledge in real-world contexts (T31). This approach benefits students in several ways. First, students learned to communicate effectively during activities like presentations or interviews (T22). Second, students gained practical experience by applying their knowledge in real-life situations (T30, T32). Third, these assessments catered to different learners and help them develop various skills beyond academics (T11, T27).

Fourth, teachers could track student learning and identify areas for improvement (T12). Fifth, students might discover hidden talents and skills through these diverse assessments (T7). Finally, students gain experience and develop skills that will be valuable beyond the classroom (T25, T32).

Constructive

This theme is about creating a learning opportunity from assessment. It goes beyond just providing a grade and focuses on helping students understand their work and how to improve their skills. Teachers continuously analyzed assessment results to identify areas where students need additional support (T9, T15, T17, T18, T21, T27-T32). This allowed them to adjust their instruction by providing more examples, clarifications, or by adapting their teaching strategies to better meet individual student needs (T1-T4, T6, T10-T14, T25, T26). In the classroom, teachers acted as facilitators, encouraging students to actively participate and manage their learning of 21st century skills (T1-T32). They did this by incorporating student responses and discussions into their lessons. Feedback is a crucial part of this process (T1-T32). Teachers provided feedback for both formative (ongoing) and summative (culminating) purposes. This involved discussing results in class, offering constructive corrections on mistakes, or asking questions to encourage critical thinking. Teachers employ a variety of feedback methods to cater to different situations (T1, T5, T7, T9, T11, T13, T21, T22, T28, T30, T32). Informal feedback often happens during class discussions. For more targeted feedback, teachers used one-on-one interviews or group feedback sessions. They emphasized the importance of timely and specific feedback (T2, T21). In some cases, home visits might be necessary to provide feedback (T22). Ultimately, effective feedback motivated students and helped them improve their learning (T21).

Collaborative

This theme highlights the concept of communication and collaboration in assessment. This includes sharing information with colleagues, superiors, and stakeholders, working with colleagues from different disciplines, and seeking help from others to improve assessment practices. The success of the ALS program and its learners hinges on well-established communication and collaboration. Teachers played a key role by sharing assessment results with school administrators and informing them of student progress (T1, T2, T4, T7, T8, T14, T28, T31). This transparency allowed administrators to make informed decisions regarding resources and support for students. Collaboration was fostered through learning action cell sessions (LAC), where teachers work together to address shared challenges, success, and best practices identified through assessment results (T5, T15, T16, T18, T21, T27, T32). This collaborative session ensured that teaching and assessment strategies are continuously refined based on student learning of 21st century skills. Effective communication extended beyond the teaching staff. Parent-teacher meetings (T3, T6, T10, T17, T19, T24) and direct student communication (T17, 23) ensured that assessment results were shared with all stakeholders, fostering a sense of shared responsibility for student success. Local government units (LGUs) further supported this assessment-centered approach by providing resources for ALS teachers (T9, T13, T14, T18, T20, T22, T23, T26, T29).



These resources included professional development opportunities or materials to help teachers design and implement effective assessments. This collaborative communication network, built upon a foundation of assessment data, fostered a supportive learning environment where all stakeholders work together to ensure student achievement.

How teachers manage the socio-emotional aspect of assessing 21st century skills

Collaborative

The teachers emphasized the critical importance of collaboration and communication with fellow educators, supervisors, local government units (LGUs), and parents in addressing the socio-emotional aspects of assessing 21st century skills. This collaborative effort occurred regularly and is typically scheduled. Initially, teachers engaged in Learning Action Cell (LAC) sessions characterized by meetings, training, and the exchange of practices and updates with colleagues and supervisors. Teachers T1, T4, T10, T17, and T18 noted that these sessions provided opportunities to share trends and updates regarding student learning and outcomes. Similarly, T12, T18, and T19 highlighted that these sessions facilitated the sharing of best practices among teachers, enabling them to discern effective approaches. According to T18, T19, and T20, collaboration involved teachers understanding and sharing each other's activity sheets and identifying necessary module revisions to better meet students' needs and characteristics. T26 emphasized that collaboration was based on the specific expertise of each teacher within the district. While ALS teachers are expected to be versatile in teaching different strands, they also specialized in certain areas when teaching and assessing students. Collaboration with LGUs and other organizations is also critical. As noted by T9, T13, T20, T22, and T27, collaboration with LGUs typically involved reporting overall results, such as the number of enrolled students, passers, etc. In return, LGUs provided resources, including printed modules or bond paper, and venues for classes, such as barangay halls or covered courts. Local officials also accompanied teachers in remote areas and played a crucial role in identifying potential ALS enrollees within their jurisdictions. However, collaboration with parents was reportedly limited or often non-existent, occurring mainly during enrollment for signing documents or upon graduation, as noted by T2 and T29. Teachers T3, T6, and T28 observed that parental interest is generally lacking, particularly when learners are adults (T3, T25, T26, T27).

Differentiation

This theme is a crucial pedagogical strategy in the ALS due to the diverse competency levels and socio-economic backgrounds of the students. These students often faced significant challenges, such as financial difficulties, verbal and physical abuse, and dysfunctional family environments. These adverse circumstances frequently led to interruptions in their education, which continued to impact them after they enroll in the ALS. Teachers, such as T2 and T6, emphasized the importance of extending consideration and patience to accommodate the unique circumstances of each student. This approach involved recognizing the individual struggles that students face and providing tailored support to address their specific needs. Consequently, differentiation in the ALS is not merely an instructional strategy but a compassionate response to the complex realities of the learners. Further, T4, T21, and T28 highlighted that when learners encounter difficulties in understanding lessons, it is imperative to adapt instructional materials and assessments to align with the students' comprehension levels and preferred learning styles. This approach is vital in ensuring that all students can access the curriculum and achieve the desired learning outcomes, regardless of their initial competency levels. By customizing resources and methodologies, teachers created an inclusive learning environment that fosters student engagement and persistence. This personalized approach helped maintain student attendance and participation, even amidst the hardships they faced outside the classroom. It underscores the ALS's commitment to equity and the belief that every student, regardless of their background or current circumstances, deserves an opportunity to succeed academically. Differentiation within the ALS is essential not only for accommodating varying academic abilities but also for addressing the broader socio-emotional challenges faced by the students. This approach, grounded in empathy and flexibility, ensured that education was accessible and meaningful for all learners, thereby supporting their continued attendance and overall academic success.

Multifaceted

Teachers in the ALS played multifaceted roles in assessing 21st century skills, encompassing responsibilities as facilitators, assessors, counselors, and role models. As noted by T5, the facilitator role involved guiding students to become independent learners, promoting self-directed learning. In their capacity as assessors, teachers emphasized the importance of understanding the individual needs and characteristics of learners. T21 highlighted the need to consider learner diversity and multiple intelligences, which is echoed by T11, who employed a differentiated approach to cater to the diverse student body. T9, T29, and T30 further elaborated that assessments are adjusted in difficulty based on observations of student struggles, ensuring a fair and supportive evaluation process. As counselors, teachers provided emotional support and encouragement to students. T18 stressed the importance of empathy, particularly when delivering feedback, as many students are sensitive and emotionally vulnerable. This empathetic approach was crucial in fostering a supportive learning environment. Moreover, teachers like T30 and T25 focused on conditioning students by instilling a mindset of perseverance and continuous improvement. T10, T11, and T14 motivated students by explaining the significance of assessments for their future, emphasizing that their efforts are essential in achieving their dreams.

This motivational aspect underscored the role of assessments as tools for personal and academic growth. Finally, teachers such as T11, T12, and T27 often assumed a parental role, providing guidance and support when students face personal or family-related issues. This role was vital in creating a trusting and safe environment for students, enabling them to focus on their education despite external challenges. ALS teachers adopted a holistic approach in their roles, addressing not only the academic needs but also the emotional and personal development of their students. This multifaceted involvement is essential in nurturing well-rounded individuals capable of navigating the complexities of the 21st century.

Trust-driven

Teachers emphasized that the effective learning and assessment of students are fundamentally dependent on the development and maintenance of trust between educators and students. T1, T21, and T27 pointed out that establishing trust is essential for students to feel comfortable disclosing personal aspects of themselves, which is particularly important for reflective or self-development activities. One method to build this trust was by sharing personal experiences that resonate with students, creating a relatable and empathetic connection. T12 supported this by noting that many teachers, having faced similar hardships and struggles, can become relatable figures to their students. Trust also necessitates that teachers maintain strict confidentiality regarding students' assessment results. T5 highlighted that teachers are bound by the Child Protection Policy and Data Privacy Act, requiring them to exercise due diligence in adhering to these regulations. T19 and T20 revealed that they are particularly cautious about posting any confidential information on social media. This careful handling of information not only complies with regulations but also ensures that assessment results are kept private, shared only between the teacher, student, and parent or guardian. Such confidentiality prevents unnecessary comparisons between students, who have varying levels of competency, thus fostering a more supportive and equitable learning environment. In essence, a trust-driven approach in the ALS is crucial. It enables students to engage openly in the learning process, assures them of the confidentiality and integrity of their personal information, and ensures that their unique educational journeys are respected and protected. This foundational trust is vital for fostering a secure, empathetic, and effective educational experience.



Motivational

Teachers consistently focused on positive reinforcement and encouragement, rather than strictness and rigidity. T5 and T9 observed that a stern approach, characterized by imposing deadlines and rigid instructions, tends to discourage student attendance and engagement. Instead, motivation was fostered through various forms of verbal reinforcement. For instance, T3 emphasized the importance of acknowledging students' efforts, providing positive feedback that recognizes and values their hard work. T9 highlighted the strategy of making assessments relatable to real-life scenarios, helping students see the practical relevance and applicability of their learning. T13 and T15 focused on rebuilding students' aspirations, inspiring them to envision and strive towards future goals. T17 noted the significance of providing reassurances, offering consistent encouragement and support to bolster students' confidence and persistence. This approach underscored the importance of creating a supportive and nurturing educational environment. By emphasizing positive reinforcement, teachers were able to cultivate a more engaging and motivating learning atmosphere that encouraged students to participate actively and persist through challenges. The use of verbal reinforcements not only enhanced student motivation but also contributes to their overall emotional and psychological well-being, which is crucial for their academic and personal development. The consistent use of motivational strategies by ALS teachers, focused on verbal reinforcement and empathy, fostered student engagement and persistence. This approach, which contrasts sharply with a stern and rigid methodology, highlighted the importance of understanding and addressing the unique needs and circumstances of each student, thereby promoting a more inclusive and supportive educational experience.

A man in a dark shirt and glasses stands at the front of a room, gesturing with his hands as if presenting. He is facing an audience of several people seated in wooden chairs. The room has a whiteboard in the background and a potted plant. The entire image is overlaid with a blue tint.

PART 6

Discussion

Our study examined the nuanced understanding of teachers regarding the assessment of 21st century skills within the ALS context. In the ALS context, the conceptualization of assessing 21st century skills is deeply shaped by the diverse and often disadvantaged backgrounds of students, requiring a multidimensional approach that encompasses both academic and life skills relevant to their real-world experiences. Integration of assessment in ALS involves diverse methods and strong collaborative efforts among teachers, students, parents, and community members, ensuring a holistic evaluation that addresses varied learning styles and needs. The socio-emotional dimensions are particularly significant, as teachers must build trust, provide emotional support, and employ motivational strategies to engage and sustain student participation. This comprehensive approach ensures that assessment practices not only measure academic progress but also foster personal growth, emotional resilience, and practical life skills, essential for the overall development of ALS learners. The ALS context demands a nuanced approach to the assessment of 21st century skills, considering the system's flexibility, diversity of learner needs, and the emphasis on practical and life skills alongside traditional academic skills. These factors make the ALS an intriguing and important area for investigating innovative assessment practices and their impacts on educational outcomes.

Teachers collectively emphasize the multifaceted nature of these skills, stressing the importance of digital literacy, problem-solving, communication, and adaptability, crucial for contemporary success. They employ various assessment techniques, including performance-based assessments, traditional tests, portfolio assessments, and peer assessments, tailored to meet the diverse needs of ALS students. These findings resonate with several related studies in the field of alternative education. Kim and Taylor's (2008) research in the USA highlighted the marginalized status of both students and teachers in alternative education settings, paralleling our findings on the need for equitable education delivery and teacher support. These were highlighted by teachers' perception that ALS teachers and students were treated as second-class citizens, compelling them to adjust their pedagogy and social practices to mitigate such treatment.

Our study also revealed a diverse range of approaches to assessing 21st century skills in an ALS environment. Teachers emphasized aligning learning objectives with assessments, adjusting teaching strategies based on assessment data, and providing personalized feedback to students. Strategies included incorporating real-life examples, adapting assessments to individual student needs, and utilizing various assessment methods. These findings underscore a student-centered approach to assessment, emphasizing flexibility, alignment with learning goals, and differentiation.



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They resonate with related studies on alternative education, such as Kim and Taylor (2008) and Mills and McGregor (2013), which highlight the importance of personalized attention and favorable opportunities for marginalized students. Additionally, the success of ALS programs in teaching basic skills, as reported by Salendab and Cogo (2022), aligns with the emphasis on aligning assessments with learning objectives in our study. Furthermore, we shed light on the diverse methods teachers employed to share assessment results with stakeholders, aligning with the collaborative approach advocated in related studies. For instance, Kim and Taylor (2008) stressed the importance of communication and collaboration among stakeholders in alternative education settings, which mirrors the transparent communication and feedback sessions emphasized in our findings. Additionally, Mehra et al. (2021) highlighted the cost-effectiveness of alternative learning interventions, reflecting the efficient communication strategies seen in our study, such as immediate feedback provision and one-on-one conversations with parents. This study also uncovered a myriad of strategies employed by teachers to integrate 21st century skills into their assessment practices, ranging from self-assessment to peer assessment facilitation. These findings resonate with the broader context of alternative education explored in related studies. For instance, Kim and Taylor (2008) emphasized the significance of creating a nurturing environment in alternative schools, fostering trust among students—a sentiment echoed in our study's emphasis on providing guidance while allowing autonomy in self-assessment. Similarly, Mills and McGregor (2013) emphasized the importance of offering opportunities for marginalized students to re-engage with education, which parallels the collaborative and communicative nature of peer assessment highlighted in this study.

In terms of managing the socio-emotional aspects of assessing 21st century skills, we found that teachers employed various collaborative strategies, including communication with colleagues, engagement with parents and stakeholders, and participation in professional development activities like LAC sessions. These efforts aimed to foster a common understanding of assessment practices and improve systems to promote student learning. This collaborative approach resonates with findings from Kim and Taylor (2008), who emphasized the importance of creating a caring environment in alternative education settings. Similarly, Mills and McGregor (2013) highlighted the need for tailored approaches to engage marginalized learners effectively. Our study's findings highlighting collaboration reflect these concerns, suggesting that effective assessment practices in ALS require a concerted effort from teachers, colleagues, and stakeholders. Furthermore, our study reveals teachers' perspectives on the effectiveness of their assessment approaches, with many expressing confidence in their methods. This aligns with Mehra et al.'s (2021) evaluation of ALS programs, which found cost-effective interventions for at-risk urban youth. The affirmation of effectiveness underscores the importance of ethical considerations, a theme also highlighted in Igarashi's (2019) recommendation for capacity-building programs for ALS teachers. In terms of student outcomes, our study indicates both challenges and promising results in assessing 21st century skills among ALS students. This mirrors the contrasting findings of Tindowen et al. (2017) and Arciosa et al. (2022), emphasizing the need for ongoing assessment and intervention strategies to address proficiency gaps and capitalize on areas of success.



The findings regarding how teachers conceive the assessment of 21st century skills stem from a variety of factors, including the evolving nature of education and the demands of contemporary society. Teachers collectively emphasized the multifaceted nature of these skills, recognizing that they encompass not only technical competencies but also interpersonal abilities, critical thinking, adaptability, and digital literacy. This understanding reflects the recognition that students need a diverse skill set to thrive in today's rapidly changing world. The emphasis on digital literacy and technology application is driven by the increasing reliance on technology for communication, problem-solving, and access to information in various facets of life. The focus on holistic assessment and career skill cultivation underscores the need to prepare students for success not only academically but also in their future careers and personal lives. Remaining current with global advancements reflects the importance of keeping pace with technological and societal changes to ensure that education remains relevant and effective. Similarly, teachers' emphasis on holistic development acknowledges that students need more than just academic knowledge to thrive—they also require skills, work habits, and character traits that are essential for success in the 21st century. Teachers stressed the importance of information technology literacy, communication, critical thinking, leadership, and productivity. This reflects a recognition of the unique needs and challenges faced by learners in alternative education and the importance of equipping them with skills that are relevant and applicable to their lives. Moreover, teachers emphasized the necessity of 21st century skills for navigating a digital society and future employment. This highlights the pragmatic aspect of skill development, with educators recognizing that these skills are essential for students to thrive in an increasingly digitalized world and to remain competitive in the job market.

Regarding the strategies employed by teachers to assess students' 21st century skills, a range of approaches is evident, showcasing the importance of alignment, differentiation, and personalization. Teachers utilized projects, performance-based assessments, rubrics, and personalized attention to evaluate students' progress effectively. Strategies such as revising lesson plans, employing portfolio-based assessments, and adjusting assessments based on individual student needs demonstrate a commitment to ensuring fair evaluation and promoting student success. When it comes to selecting assessment strategies and tools for gathering data on students' 21st century skills, flexibility and alignment with learning objectives are key themes. Teachers prioritized methods that cater to students' diverse needs and preferences while ensuring that assessments directly correlate with lesson objectives.

Various tools such as rubrics, performance tasks, and pre/post-tests are utilized to gauge student development and adjust teaching strategies accordingly. Portfolio assessment emerged as a prominent method, supplemented by observations, performance tasks, and classroom activities. Teachers compile evidence from various sources such as work samples, quizzes, and student-created videos to provide a comprehensive picture of student learning. Lastly, teachers employed diverse methods for interpreting data regarding student performance and learning, emphasizing the importance of rubrics, qualitative analysis, and personalized feedback. Strategies such as point systems, recognition of prior learning forms, and distribution of scores among students helped teachers understand student progress and tailor instruction accordingly. Teachers employed a variety of strategies to provide feedback to students, ranging from informal verbal feedback directly on students' work to formal written feedback on documents like ALS forms. The emphasis was placed on individualization, with teachers assessing students' strengths and areas for improvement before providing feedback. Additionally, teachers prioritized personalized attention, conducting one-on-one interviews and individual discussions to guide students in improving their skills. The data also highlights the importance of transparency and timeliness in feedback delivery, with some teachers emphasizing the immediate provision of feedback after tests to encourage improvement. In terms of using assessment results to manage student learning of 21st century skills, teachers adopted a student-centered approach, focusing on instructing and supporting students based on identified weaknesses and areas for improvement. This involved revisiting topics where students struggled, providing additional activities, or adjusting teaching methods to address individual student needs. Teachers also emphasized open communication and collaboration between teachers and students, fostering a supportive learning environment conducive to student success. The data further reveals various strategies employed by teachers to manage student-involved assessment, including self-assessment and peer assessment. Teachers prioritized providing clear instructions and guidelines to students to facilitate effective self-assessment and peer assessment practices. Additionally, teachers leveraged technology and collaborative activities to encourage student engagement and mutual support in the assessment process. Teachers also demonstrated various methods of sharing assessment results with students, parents, administrators, and other stakeholders. These methods include providing feedback sessions with students to discuss their performance and areas for growth, as well as communicating assessment results through presentations, written reports, and parent-teacher conferences. Teachers emphasized the importance of transparency and collaboration in sharing assessment information, seeking input from stakeholders and collaborating with colleagues to improve assessment practices.

The findings on how teachers manage the socio-emotional aspect of assessing 21st century skills within the ALS program suggest several contributing factors. Firstly, the emphasis on collaboration with colleagues, parents, and stakeholders reflects a strong collaborative culture within the ALS community, where teachers recognize the value of sharing insights and resources to enhance assessment practices collectively. Secondly, teachers' participation in professional development opportunities, such as LAC sessions and orientation workshops, indicates a commitment to ongoing learning and improvement in assessment strategies, likely providing them with new insights and resources.

Thirdly, the need for resources, as evidenced by teachers' lobbying efforts with local government units, underscores the resource constraints faced by ALS programs, prompting collaboration with external entities to access support for assessment tools and materials. Furthermore, the focus on shared goals, open communication, and trust among colleagues suggests a cohesive approach to assessment practices within the ALS community, fostering an environment conducive to effective collaboration and support. Additionally, teachers' commitment to student well-being, as demonstrated by their emphasis on building trust, respecting learners' rights, and addressing ethical issues, highlights a holistic approach to assessment that prioritizes students' socio-emotional development alongside academic growth. Lastly, the engagement with parents, local government units, and organizations reflects a broader community involvement strategy, where stakeholders are actively engaged in assessment practices to support student learning and development.

A photograph of three students in a classroom setting, looking intently at a project on a table. The student on the left is pointing at a document. The student in the middle is looking down at the project. The student on the right is also looking at the project. The background shows a window with blinds and a fan. The image has a blue tint.

PART 7

Conclusion

In our study, we investigated teachers' experience in assessing 21st century skills within the ALS context. Findings reveal that ALS teachers employ a multidimensional approach to assessing 21st century skills, recognizing the need to evaluate a wide range of competencies. This approach aligns well with the ALS context, where the diverse backgrounds and needs of learners necessitate flexible and comprehensive assessment strategies. Teachers integrate both quantitative and qualitative methods, ensuring that assessments are relevant to real-world contexts and reflective of students' holistic development. However, despite their innovative practices, ALS teachers face significant challenges due to limited resources, theoretical training, and systemic marginalization, which impact their ability to implement assessments effectively and equitably. The collaborative, principles-driven, and future-ready-centric nature of their assessment practices underscores their commitment to preparing students for future challenges while fostering an inclusive and supportive learning environment. The alignment of themes across the three objectives highlights a generally coherent approach to assessing 21st century skills in ALS, particularly in terms of collaborative, authentic, adaptive, and multifaceted assessment. However, misalignments point to areas where additional training, resources, and consistent implementation are needed to fully realize the potential of these assessment practices. Addressing these gaps can help ensure that assessments are not only comprehensive and multidimensional but also effectively prepare students for future challenges and support their socio-emotional development. Overall, the study highlights the critical role of ALS teachers in bridging educational gaps and addressing the socio-emotional needs of marginalized learners through thoughtful and context-sensitive assessment practices.

Our findings have several implications for assessment within the ALS context, particularly in the Philippines. First and foremost, the diverse range of assessment techniques highlighted in our study offers practical insights for teachers to effectively evaluate 21st century skills among ALS students. By understanding and implementing various assessment methods such as performance-based assessments, portfolio assessments, and peer assessments, educators can better tailor their instructional approaches to meet the diverse needs of ALS learners. Furthermore, the emphasis on personalized feedback, transparent communication, and collaboration underscores the importance of fostering supportive learning environments within ALS programs.



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Teachers can leverage these findings to create inclusive classrooms where students feel empowered to engage in self-assessment and peer assessment practices, leading to improved learning outcomes. From a theoretical standpoint, our findings contribute to the broader discourse on alternative education effectiveness and teacher development. By highlighting the multifaceted nature of 21st century skills and the diverse strategies employed by teachers to integrate these skills into their assessment practices, our study enriches theoretical frameworks related to assessment in alternative education settings. Additionally, our findings align with existing research on effective strategies for engaging marginalized learners and improving student outcomes in alternative education contexts.

While our study offers valuable insights into the assessment practices of teachers within the ALS context, several limitations should be acknowledged to guide future research endeavors. The study's focus on eight government-funded ALS sites in specific regions of the Philippines may limit the broader applicability of our results. Future research could expand the scope by including a more diverse range of ALS sites across different regions or countries, considering variations in student demographics, resources, governance structures, and instructional processes. Additionally, while the inclusion criteria for selecting teachers ensure relevance to the ALS context, the sample size of 32 secondary teachers may restrict the representativeness of our findings. Future studies could employ mixed methods design and aim for larger sample sizes to increase the robustness and generalizability of results. The utilization of semi-structured interviews and direct observation as data collection methods offers comprehensive insights into teachers' assessment practices. However, the reliance on self-reporting through interviews may introduce biases or social desirability effects, potentially influencing the accuracy of responses. Future research could incorporate additional data collection methods, such as surveys or document analysis, to triangulate findings and enhance the validity of results. Moreover, while direct observation strengthens the credibility of interview data, the study's focus on observing teachers during instructional sessions may overlook assessment practices outside of classroom settings. Future studies could explore teachers' assessment practices in diverse contexts, including non-classroom settings such as community-based learning environments. Acknowledging and addressing the limitations outlined above can guide future research efforts to advance our understanding of assessing 21st century skills in alternative education settings.

A woman with short brown hair and glasses is looking down at a document she is holding. She is wearing a light-colored polo shirt. The background is a blurred office setting with a grid ceiling. The entire image has a blue color overlay.

PART 8

Policy Recommendations



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Based on the findings from the study on teachers' experiences in assessing 21st century skills within the ALS context, several policy recommendations can be made. First, there is a need for enhanced training and professional development. The study highlights a gap in theoretical knowledge among ALS teachers regarding the assessment of 21st century skills, with many relying on fundamental assessment principles rather than specific theories or models. Continuous professional development programs focused on advanced assessment theories, methods, and the application of psychometric and statistical analysis in assessments should be implemented. This training should also cover effective integration of digital literacy, critical thinking, and life skills in assessments.

Furthermore, the development of a comprehensive assessment framework is essential. Teachers conceive assessment as a multidimensional process encompassing diverse knowledge and skills. However, the lack of sophisticated methods and tools hinders comprehensive assessment. Therefore, a standardized yet flexible assessment framework and tools that encompass quantitative and qualitative methods should be developed and distributed. These should include rubrics, portfolios, performance tasks, and technological tools to ensure a well-rounded evaluation of students' competencies. Strengthening collaborative practices is also crucial, as collaboration is a recurring theme in assessing 21st century skills, with teachers working with colleagues, parents, and community members. A collaborative culture should be fostered by institutionalizing regular LAC sessions, parent-teacher conferences, and creating platforms for community involvement, such as community workshops and collaborative projects aligned with educational goals.

Moreover, there should be a focus on socio-emotional learning (SEL). The socio-emotional dimension is critical, with teachers needing to build trust, provide emotional support, and use motivational strategies to engage students. Integrating SEL into the curriculum and assessment practices is essential, along with providing teachers with resources and training on SEL strategies, mental health awareness, and effective communication techniques to better support students' emotional and psychological well-being. Additionally, adaptive and inclusive assessment practices should be adopted. Teachers employ adaptive assessment strategies to cater to individual student needs, highlighting the importance of differentiation. The use of adaptive assessments that adjust in real-time based on student performance should be promoted, ensuring assessments are inclusive and cater to diverse learning needs by incorporating various formats and providing necessary accommodations for students with different learning abilities and backgrounds.

Increasing the use of technology in assessments is another recommendation. The emphasis on digital literacy and technological integration is evident, yet practical application in assessments remains limited. Therefore, incorporating digital tools, online portfolios, and e-assessments is crucial, along with providing the necessary infrastructure and training to ensure both teachers and students are proficient in using these technologies effectively. There should also be a focus on future-ready skills, aligning curriculum and assessment practices with these skills by integrating career-oriented projects, real-world problem-solving tasks, and leadership activities. Partnering with industries and community organizations can provide students with exposure to real-world scenarios and professional environments.

Ethical considerations and confidentiality are vital for effective assessment and learning. Establishing clear policies and guidelines on ethical assessment practices, confidentiality, and data privacy is necessary, along with training teachers on these policies to ensure they handle assessment data responsibly and maintain student trust. Resource allocation and support are also critical, as resource constraints are a significant challenge for ALS programs. Increased funding and resource allocation for ALS programs should be advocated, ensuring schools have adequate materials, technological tools, and support systems to implement effective assessment practices. Engaging local government units and community organizations can provide additional resources and support.

Finally, robust feedback mechanisms and continuous improvement should be implemented. Constructive feedback is essential for student improvement and motivation. Therefore, mechanisms where teachers provide timely, specific, and constructive feedback to students should be established. Encouraging a culture of continuous improvement by regularly reviewing and refining assessment practices based on feedback from teachers, students, and other stakeholders is also important. By adopting these policy recommendations, educational authorities can enhance the effectiveness of assessment practices in ALS, ensuring that they are comprehensive, inclusive, and aligned with the needs of 21st century learners.

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Contributors

Research Team
National University (Philippines)

Dr. Jessie S. Barrot
Principal Research Proponent

Dr. Arnold A. Eniego
Co-proponent

Mr. Denson R. Acomular
Co-proponent

Dr. Leo S. Del Rosario
Co-proponent

Mr. Richmond Charles D. Viray
Co-proponent



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**Southeast Asian Ministers of Education Organization
Regional Center for Educational Innovation and Technology
(SEAMEO INNOTECH)**

Commonwealth Avenue, Diliman, Quezon City 1101, Philippines

Tel: (+632) 8-924-7681 to 84

Email: info@seameo-innotech.org

Website: www.seameo-innotech.org



National University (Philippines)

551 M.F. Jhocson St., Sampaloc, Manila 1008, Philippines

Email: info@national-u.edu.ph

Website: <https://national-u.edu.ph>

