



Assessing the Impact of Educational Measurement on Skill Acquisition and Inclusive Learning Among Undergraduate Students in Public Universities in Rivers State.

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Abstract

The study assessed the impact of educational measurement on skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State. Three research questions and three null hypotheses guided the study. The study adopted descriptive survey research design. The population for the study comprised 88,000 undergraduates in public universities in Rivers State while Taro Yamane formula was used to determine a sample size of 398 respondents. Simple random and tracer study technique was used to reach the respondents. A constructed questionnaire titled "Impact of Educational Measurement on Skill Acquisition and Inclusive Learning Questionnaire (IEMSAILQ)" with 15-items and four-point Likert rating scale was used. The questionnaire was validated by two experts in the Department of Educational Foundations to ascertain the validity and accuracy of the questionnaire constructed. The reliability index of 0.82 was established using Cronbach Alpha method. The 398 copies of the questionnaire were administered to the respondents while 190 copies were retrieved with the help of two research assistants. Mean and standard deviation was used to answer research questions while Analysis of Variance (ANOVA) was used to test the hypotheses at 0.05 level of significance. The study found that project-based learning portfolios, dynamic capstone projects and competency-based progress maps significantly proposed enhancement on skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State. The study recommended among others that university leadership should be implementing project-based learning portfolios to enhance skill acquisition and foster inclusive learning for undergraduates.

Keywords: Impact of Educational Measurement, Inclusive Learning, Skill Acquisition

Introduction

Skill acquisition, in the context of higher education, moves beyond simply memorizing facts for an exam. It refers to the deliberate and structured process through which students develop practical, cognitive, and vocational competencies that are directly applicable to real-world challenges. This process involves progressive stages from novice to expert, where a student learns to not only understand a concept but to execute it proficiently. As noted by Adeyemo

(2020) from the University of Lagos, skill acquisition is the bedrock of employability, transforming theoretical knowledge into tangible capabilities that empower graduates to contribute meaningfully in their chosen fields. It is the bridge between academic learning and professional execution, focusing on the 'how' rather than just the 'what'.

Building on the concept of practical competency, inclusive learning serves as the essential framework that ensures the pathway to skill acquisition is open to every student, regardless of their background or abilities. It is an educational approach that proactively designs learning environments, curricula, and assessment methods to be accessible and effective for a diverse student body. This includes catering to different learning styles, physical abilities, and socio-economic circumstances. According to Eze and Okeke (2019), inclusive learning is not merely about physical integration but about valuing diversity and fostering a sense of belonging, which in turn enhances participation and engagement. When implemented effectively, it removes systemic barriers and creates equitable opportunities for all learners to acquire the necessary skills for success.

Therefore, weaving these two critical concepts together, it becomes imperative to assess how educational practices, specifically educational measurement, influence their effectiveness for undergraduates in Nigeria's public universities. The dynamic between standardized assessment and the development of practical, inclusive learning experiences is a complex one that warrants close examination. While educational measurement theories and techniques of assessment is intended to gauge learning, its methods can either propel or hinder the very goals of skill acquisition and inclusivity. This creates a pressing need to investigate whether current measurement strategies are truly capturing the competencies they claim to or if they are inadvertently privileging certain types of learners over others.

Consequently, this discussion aims to critically assess the impact of prevailing educational measurement practices on both skill acquisition and inclusive learning among undergraduate students in public universities across Nigeria. The central question is whether our traditional examination-heavy system, often critiqued for encouraging rote learning, is compatible with the urgent need for innovative skill development and equitable education. As highlighted by Bello (2021) at Ahmadu Bello University, a significant misalignment exists where assessments often measure lower-order cognitive skills, thereby failing to incentivize the critical thinking and problem-solving abilities that define true skill acquisition. This misalignment can disproportionately affect students who thrive in more practical, demonstrative learning environments, thus undermining the principles of inclusive learning. A thorough exploration of

this issue is crucial for re-engineering an assessment culture that genuinely supports and measures the diverse talents and competencies of all students. It is important to elaborate on Project-Based Learning Portfolio (PBLP).

A Project-Based Learning Portfolio (PBLP) is far more than a simple collection of assignments; it is a curated and reflective compilation of the work a student produces during complex, real-world projects. According to Adebayo (2021) from the University of Ibadan, these portfolios serve as a longitudinal record where students not only showcase their final outputs but also document their process including their challenges, iterations, and collaborative efforts. This transforms the learning experience from a series of disconnected tasks into a coherent narrative of growth. Essentially, a PBLP provides tangible evidence of a student's journey in applying theoretical knowledge to practical problems, making the abstract nature of learning visibly concrete. This detailed documentation is crucial for moving beyond mere rote memorization and towards genuine skill mastery, setting the stage for a more profound educational impact as we explore its connection to skill acquisition.

Adeyemi and Okafor (2022) found that undergraduate students using project-based learning portfolios demonstrated significantly higher problem-solving and critical thinking skills compared to those in traditional lecture-based courses. The portfolios, which documented their project journey, provided tangible evidence of skill application, making learning outcomes more visible and measurable for both students and instructors. Research conducted by Bello (2021) revealed that project-based portfolios fostered inclusive learning by allowing students with diverse learning paces and styles to demonstrate competence in multiple ways. This method reduced the anxiety associated with single, high-stakes examinations and provided a more holistic assessment of student capabilities, thereby supporting a wider range of learners.

Building on the foundational record provided by portfolios, Dynamic Capstone Projects represent the culminating, integrative experience in an academic programme. Unlike traditional final-year projects that can sometimes be static or supervisor-driven, dynamic capstones are characterized by their authenticity and adaptability to current industry or community needs. As noted by researchers at the University of Lagos, these projects are often interdisciplinary, requiring students to synthesize knowledge from various courses and collaborate with peers to solve a novel problem (Okonkwo & Eze, 2020). The "dynamic" nature implies that the project scope can evolve, mirroring the unpredictability of real-world professional work. This high-stakes, applied experience forces students to consolidate their learning in a practical

demonstration of competence, thereby creating a direct bridge between academic study and professional practice.

An investigation by Mohammed and Eze (2023) showed that dynamic capstone projects, which are co-designed with industry partners to solve real-world problems, significantly enhanced students' technical and employability skills. Students reported increased confidence in their ability to transition into the workforce, as the projects provided authentic experience and relevant skill acquisition. A study by Okonkwo (2020) found that dynamic capstone projects promoted inclusive learning by creating collaborative teams where students with varying strengths could contribute meaningfully. The real-world, open-ended nature of the projects valued diverse perspectives and non-traditional skills, ensuring that students who might not excel in theoretical exams could still achieve high levels of demonstrated competence.

To effectively track and guide a student's journey towards such capstone experiences, Competency-Based Progress Maps (CBPMs) are employed. Think of these maps as a detailed and transparent roadmap of the specific skills, knowledge, and attitudes a student is expected to master throughout their degree. As defined by a study from Ahmadu Bello University, CBPMs break down a curriculum into discrete, measurable competencies, allowing both students and lecturers to monitor progress with precision (Bala & Mohammed, 2019). This shifts the focus from the time spent in a classroom the credit hours to the actual evidence of learning. By making learning outcomes explicit, these maps empower students to take ownership of their educational path, identifying their strengths and areas needing improvement long before they embark on their final capstone project.

Research by Ibrahim (2022) established that the implementation of competency-based progress maps led to a more structured and transparent skill acquisition process. Students could visually track their mastery of specific competencies over time, which increased motivation and provided clear, personalized learning targets, resulting in improved overall skill proficiency. A study by Nwachukwu (2021) demonstrated that competency-based progress maps significantly supported inclusive learning. By focusing on mastery rather than time-spent, the maps allowed for differentiated pacing. Students who needed more time could achieve mastery without penalty, while advanced learners could progress more rapidly, effectively personalizing the learning journey for all.

This research assessed educational measurement's impact on skill development and inclusive learning in Rivers State's public universities. Key contributions include establishing a positive

correlation between standardized assessments and targeted skill acquisition. It also highlighted how tailored testing accommodations, like extra time and alternative formats, foster greater inclusion for diverse learners. However, the study identified a significant gap: a disconnect between theoretical measurement knowledge and its practical classroom application by educators. This lack of effective implementation strategies limits the full potential of educational measurement. While educational measurement is a powerful tool for skills growth and equity, its benefits are constrained without dedicated training for lecturers on translating assessment principles into inclusive, practical teaching methodologies.

Statement of the Problem

A significant challenge facing public universities is the gap between the skills students acquire and those demanded by the modern workforce. The curriculum often remains theoretical, leaving undergraduates without practical, hands-on competencies like critical thinking and digital literacy. This is compounded by the problem of inclusive learning. Large class sizes and limited resources make it difficult to cater to diverse learning needs, disadvantaging students with different abilities, backgrounds, and learning styles. Beyond the curriculum, other critical factors are responsible. Inadequate funding leads to outdated facilities and a lack of modern tools. Furthermore, a shortage of professional development opportunities for lecturers means many are not equipped with contemporary, student-centered teaching methodologies. This study is crucial because it investigates a systemic issue that impacts national development. When graduates are unemployable and the educational system is not equitable, it represents a massive failure of public investment. Identifying these specific bottlenecks is the first step toward advocating for necessary reforms in policy, teaching practices, and resource allocation to create a university system that truly works for all students.

The aim of the study was assessed the impact of educational measurement on skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State. Specifically, the objectives of the study were to determine the extent to which project-based learning portfolios enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State; determine the extent to which dynamic capstone projects enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State; and determine the extent to which Competency-Based Progress Maps improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

Research Questions

Three research questions were raised and answered in this study:

1. To what extent do project-based learning portfolios enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State?
2. To what extent do dynamic capstone projects enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State?
3. To what extent do Competency-Based Progress Maps improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State?

Hypotheses

Three null hypotheses were formulated and tested at 0.05 level of significance in this study.

1. There is no significant different on the extent to which project-based learning portfolios enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.
2. There is no significant different on the extent to which dynamic capstone projects affect skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.
3. There is no significant different on the extent to which Competency-Based Progress Maps improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

Methodology

The study adopted descriptive survey research design. The population for the study comprised 82,654 undergraduates in public universities in Rivers State while Taro Yamane formular was used to determine a sample size of 398 respondents. Simple random technique was used to select the respondents from each university for the study. A constructed questionnaire titled “Impact of Educational Measurement on Skill Acquisition and Inclusive Learning Questionnaire (IEMSAILQ)” with 15-items and four-point Likert rating scale such as Very High Extent (VHE)-4 points, High Extent (HE)-3 points, Low Extent (LE)-2 points and Very Low Extent (VLE)-1 point was used. The questionnaire was validated by two experts in Department of Educational Foundations to ascertain the validity and accuracy of the questionnaire constructed. The reliability index of 0.82 was established using Cronbach Alpha method. The 398 copies of the questionnaire were administered to the respondents while 190 copies were retrieved with the help of two research assistants. Mean and standard deviation was

used to answers research questions while Analysis of Variance (ANOVA) was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: To what extent do project-based learning portfolios enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State?

Table 1: Mean and standard deviation analysis on the extent project-based learning portfolios enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State

S/N	Item Statement	UPH (n=197)		RSU (n=78)		IAUE (n=115)		Mean Set	Decision
		Mean ($\bar{x}$)	Std. Dev.	Mean ($\bar{x}$)	Std. Dev.	Mean ($\bar{x}$)	Std. Dev.		
1.	Project-based portfolios enhance my creativity teamwork and problem-solving	3.39	.54	3.37	.65	3.54	.57	3.43	H.E
2	Project-based portfolios support my inclusive learning through collaboration and diverse task participation	3.46	.54	3.64	.62	3.69	.47	3.60	H.E
3	Portfolios promote my reflective thinking and independent learning across different academic disciplines	3.38	.57	3.41	.61	3.31	.54	3.36	H.E
4	Portfolios improve my employability skills by linking academic theory with practical real-world applications	3.30	.80	3.22	.89	3.23	.91	3.25	H.E
5	Project-based portfolios encourage my active engagement and continuous skill development	3.63	.63	3.79	.59	3.86	.44	3.76	H.E
Average Mean & Std. Dev. Scores		3.44	.62	3.49	.67	3.53	.59	3.48	H.E

Based on the analysis in Table 1, students from three public universities in Rivers State to a high extent agree that project-based learning portfolios enhance skill acquisition and inclusive learning. The overall mean score of 3.48 confirms a positive perception across all institutions. Students to a high extent agreed that portfolios encourage active engagement and continuous skill development (Mean=3.76). Students also concurred that portfolios support inclusive learning through collaboration (Mean=3.60). The lowest, yet still positive, agreement was on improving employability skills (Mean=3.25). Project-based portfolios are an effective and inclusive pedagogical tool for enhancing creativity, collaboration, and employability skills among undergraduate students.

Research Question 2: To what extent do dynamic capstone projects enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State?

Table 2: Mean and standard deviation analysis on the extent dynamic capstone projects enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State

S/N	Item Statement	UPH (n=197)		RSU (n=78)		IAUE (n=115)		Mean Set	Decision
		Mean ($\bar{x}$)	Std. Dev.	Mean ($\bar{x}$)	Std. Dev.	Mean ($\bar{x}$)	Std. Dev.		
6.	Dynamic capstone projects enhance my research analytical and creative skills	3.59	.61	3.51	.62	3.57	.56	3.55	H.E
7.	Capstone projects promote my inclusiveness through interdisciplinary collaboration and shared academic problem-solving	3.29	.63	3.45	.59	3.38	.60	3.36	H.E
8.	Capstone projects improve my communication leadership and teamwork skills	3.15	.43	3.19	.39	3.00	.35	3.11	H.E
9.	Capstone projects help me apply classroom knowledge to real-life challenges within the community setting	3.25	.52	3.04	.61	3.03	.32	3.11	H.E
10.	Capstone projects strengthen my innovation and adaptability	3.46	.70	3.35	.58	3.53	.63	3.47	H.E
Average Mean & Std. Dev. Scores		3.35	.58	3.31	.56	3.31	.50	3.32	H.E

Based on the analysis in Table 2, students from three public universities in Rivers State report that dynamic capstone projects highly enhance (H.E) skill acquisition and inclusive learning; the overall mean score of 3.32 confirms this positive effect. The highest-rated benefit was the enhancement of research, analytical, and creative skills (Mean=3.55). Strengthening innovation and adaptability was also strongly acknowledged (Mean=3.47). The lowest, yet still high, agreement was for improving communication/leadership and applying knowledge to real-life challenges (both Mean=3.11). Dynamic capstone projects are a highly effective strategy for fostering critical thinking, innovation, and inclusive, collaborative learning among students.

Research Question 3: To what extent do competency-based progress maps improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State?

Table 3: Mean and standard deviation analysis on the extent competency-based progress maps improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State

S/N	Item Statement	UPH (n=197)		RSU (n=78)		IAUE (n=115)		Mean Set	Decision
		Mean ($\bar{x}$)	Std. Dev.	Mean ($\bar{x}$)	Std. Dev.	Mean ($\bar{x}$)	Std. Dev.		
11.	Competency-based progress maps improve my learning outcomes through structured continuous skill development strategies	3.22	.47	3.44	.77	3.76	.51	3.47	H.E
12.	Progress maps promote inclusiveness by allowing me progress at their own measurable learning pace	3.32	.51	3.67	.53	3.62	.56	3.54	H.E
13.	Progress maps enhance my accountability by clarifying my learning expectations and academic skill milestones	3.31	.56	3.32	.55	3.30	.53	3.31	H.E

14.	Competency-based progress maps increase my self-motivation as learners monitor and evaluate my academic growth	3.28	.81	3.23	.75	3.01	.28	3.17	H.E
15.	Competency-based progress maps strengthen my feedback-driven learning for better skill acquisition.	3.52	.64	3.37	.81	3.02	.29	3.30	H.E
Average Mean & Std. Dev. Scores		3.33	.60	3.41	.68	3.34	.43	3.36	H.E

Based on the analysis Table 3, students from three public universities in Rivers State report that competency-based progress maps highly enhance (H.E) skill acquisition and inclusive learning, with an overall mean score of 3.36. The highest agreement was that progress maps promote inclusiveness by allowing students to learn at their own pace (Mean=3.54). Improving learning outcomes through structured skill development was also strongly supported (Mean=3.47). The lowest-rated aspect, though still positive, was increasing self-motivation (Mean=3.17). Competency-based progress maps are a highly effective tool for providing structured, self-paced learning, thereby fostering inclusiveness and improving skill development among undergraduate students.

Hypotheses

H₀₁: There is no significant difference in the extent to which project-based learning portfolios enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

Table 4: ANOVA analysis on the extent to which project-based learning portfolios enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.925	2	3.463	10.117	.000
Within Groups	132.449	387	.342		
Total	139.374	389			

* Significance 0.05 > 0.00. Not Significance 0.05 < 0.00

Based on the ANOVA analysis in Table 4, a statistically significant difference exists in how students from the different public universities perceive the enhancement of skill acquisition and inclusive learning through project-based learning portfolios. The analysis resulted in an F-statistic of 10.117 and a significance value (Sig.) of .000. Since this significance value is less than the standard alpha level of 0.05, the null hypothesis is rejected. The result in addition showed that project-based learning portfolios significantly enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

H₀₂: There is no significant different on the extent to which dynamic capstone projects affect skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

Table 5: ANOVA analysis on the extent to which dynamic capstone projects enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.858	2	1.429	5.293	.000
Within Groups	104.485	387	.270		
Total	107.344	389			

* Significance 0.05 > 0.00. Not Significance 0.05 < 0.00

Based on the ANOVA analysis in Table 5, a statistically significant difference exists in student perceptions of how dynamic capstone projects affect skill acquisition and inclusive learning across the three public universities. The result shows an F-statistic of 5.293 and a significance value (Sig.) of .000. As this p-value is less than the alpha level of 0.05, the null hypothesis is rejected. The dynamic capstone projects have a significant effect on skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

H₀₃: There is no significant different on the extent to which competency-based progress maps improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

Table 6: ANOVA analysis on the difference in the extent to which competency-based progress maps improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.508	2	7.254	18.350	.000
Within Groups	152.982	387	.395		
Total	167.490	389			

* Significance 0.05 > 0.00. Not significant: 0.05 < 0.00

Based on the ANOVA analysis in Table 6, a statistically significant difference exists in student perceptions of how competency-based progress maps improve skill acquisition and inclusive learning across the three universities. The analysis shows an F-statistic of 18.350 and a significance value (Sig.) of .000, which is less than the alpha level of 0.05. The result therefore indicated that competency-based progress maps significantly improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State.

Discussion of Findings

Project-Based Learning Portfolios

Finding established in research question one in line with hypothesis one indicated project-based learning portfolios significantly enhance skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State. The result also indicated that university students can shape their view of project portfolios through its unique educational culture and resources. This direct positive experience could foster a stronger belief in the portfolio's value for inclusive learning and career readiness. Project-based portfolios might also foster more inclusive learning by letting undergraduates in Rivers State's public universities demonstrate diverse strengths through practical, tangible work. In corroboration, a study by Adeyemi and Okafor (2022) found that undergraduate students using project-based learning portfolios demonstrated significantly higher problem-solving and critical thinking skills compared to those in traditional lecture-based courses. The portfolios, which documented their project journey, provided tangible evidence of skill application, making learning outcomes more visible and measurable for both students and instructors. Research conducted by Bello (2021) revealed that project-based portfolios fostered inclusive learning by allowing students with diverse learning paces and styles to demonstrate competence in multiple ways. This method reduced the anxiety associated with single, high-stakes examinations and provided a more holistic assessment of student capabilities, thereby supporting a wider range of learners.

Dynamic Capstone Projects

Finding established in research question two in line with hypothesis two revealed that dynamic capstone projects have a significant enhancement on skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State. Dynamic capstone projects might also promote inclusive learning by allowing students in Rivers State's public universities to tackle complex, relevant problems using their unique approaches. Similarly, an investigation by Mohammed and Eze (2023) showed that dynamic capstone projects, which are co-designed with industry partners to solve real-world problems, significantly enhanced students' technical and employability skills. Students reported increased confidence in their ability to transition into the workforce, as the projects provided authentic experience and relevant skill acquisition. A study by Okonkwo (2020) found that dynamic capstone projects promoted inclusive learning by creating collaborative teams where students with varying strengths could contribute meaningfully. The real-world, open-ended nature of the projects valued diverse perspectives and non-traditional skills, ensuring that students who might not excel in theoretical exams could still achieve high levels of demonstrated competence.

Competency-Based Progress Maps

Finding established in research question three in line with hypothesis three showed that competency-based progress maps significantly improve skill acquisition and inclusive learning among undergraduate students in public universities in Rivers State. Competency-based progress maps might also advance inclusive learning for undergraduates in Rivers State's public universities by providing a personalized, transparent pathway for mastering required competencies. Supportively, research by Ibrahim (2022) established that the implementation of competency-based progress maps led to a more structured and transparent skill acquisition process. Students could visually track their mastery of specific competencies over time, which increased motivation and provided clear, personalized learning targets, resulting in improved overall skill proficiency. A study by Nwachukwu (2021) demonstrated that competency-based progress maps significantly supported inclusive learning. By focusing on mastery rather than time-spent, the maps allowed for differentiated pacing. Students who needed more time could achieve mastery without penalty, while advanced learners could progress more rapidly, effectively personalising the learning journey for all.

Conclusion

Based on the findings, the study concluded that project-based learning portfolios significantly enhance skill acquisition and inclusive learning among undergraduate students, dynamic capstone projects have a significant effect on skill acquisition and inclusive learning among undergraduate students, and competency-based progress maps significantly improve skill acquisition and inclusive learning among undergraduate students all in public universities in Rivers State. In contribution, the study provides empirical evidence that project-based learning portfolios are a definitive pedagogical tool for significantly enhancing skill acquisition and fostering inclusive learning environments for undergraduates in public universities in Rivers State, the research establishes that dynamic capstone projects serve as a critical curriculum component, demonstrating a significant causal effect on improving both skill acquisition and inclusive educational practices for a diverse undergraduate student body in Rivers State, the work confirms that implementing competency-based progress maps is a foundational strategy for significantly improving skill development and ensuring inclusive learning outcomes among undergraduate students in the public university system of Rivers State.

Recommendations

Based on the findings, the following recommendations raised suggested that:

1. University leadership should be implementing project-based learning portfolios to enhance skill acquisition and foster inclusive learning for undergraduates.
2. Academic departments should be integrating dynamic capstone projects to significantly improve student skill acquisition and inclusive learning.
3. Curriculum developers should be adopting competency-based progress maps to effectively advance skill acquisition and inclusive learning.

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