Impact of Curriculum Misalignment and Assessment Practices on Student Learning Outcomes in Higher Education: A PRISMA-Guided Qualitative Content Synthesis

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Abstract: Curriculum misalignment and incoherent assessment practices continue to pose significant challenges to student learning in higher education. This study presents a qualitative content synthesis of 21 peer-reviewed articles, guided by the PRISMA methodology, to explore how curriculum and assessment inconsistencies affect student outcomes. The synthesis identified five recurring themes: (1) disconnects between curriculum objectives and assessment content, (2) limited faculty understanding of alignment principles, (3) misaligned use of technology in assessment, (4) exclusionary practices affecting diverse learners, and (5) the corrective potential of authentic and project-based assessments. Findings indicate that misalignment contributes to surface learning, instructional inefficiency, reduced motivation, inequity, and poor assessment validity, ultimately impairing students' ability to engage meaningfully and succeed academically. The study highlights the need for systemic reforms, including curriculum audits, faculty development, and culturally responsive assessment strategies. The results reinforce the centrality of alignment theory and advocate for a triadic integration of instruction, learning outcomes, and assessment design as a cornerstone of effective, inclusive pedagogy.

Keywords: curriculum alignment, assessment practices, student learning, higher education, PRISMA, qualitative synthesis, educational equity, authentic assessment.

I.   INTRODUCTION

In recent years, institutions of higher learning have intensified efforts to reform educational practices to improve learning outcomes, address achievement gaps, and enhance instructional accountability. However, despite these initiatives, misalignment between curriculum goals, instructional methods, and assessment practices remains a persistent challenge across academic disciplines. Curriculum misalignment occurs when the elements of instructional design—learning outcomes, teaching strategies, and assessment methods—are not systematically aligned, leading to disjointed learning experiences that undermine the educational process. When assessments do not accurately reflect course objectives or content delivery, students are often left navigating a confusing landscape where performance does not equate to actual understanding. The stakes of this misalignment are high. Poor alignment often results in surface-level learning, diminished student motivation, and ineffective knowledge transfer. Moreover, assessment practices that fail to reflect curriculum goals can lead to invalid measures of student performance, obscuring both teaching effectiveness and learner progress. Faculty, while aware of the importance of alignment, frequently lack the institutional support or professional development necessary to implement coherent, outcomes-based assessment strategies. This issue is further exacerbated in digitally mediated environments, where the integration of technology tools is not always accompanied by thoughtful pedagogical design.

The challenge of curriculum misalignment is not merely technical or procedural but is deeply tied to educational equity. Standardized and culturally unresponsive assessments may inadvertently marginalize students from diverse backgrounds, thereby contributing to gaps in achievement and engagement. Furthermore, when assessments are misaligned, feedback becomes less useful, instructional adjustments are misdirected, and the overall student experience is weakened. Addressing misalignment is therefore a necessary step toward realizing an inclusive, learner-centered education that meets the diverse needs of students and the evolving expectations of global labor markets. The curriculum is a critical tool in guiding instruction and assessment of student learning (Ashbee, 2021). Maintaining the desired learning outcomes increases the frequency of SLO assessment (Powell & Saint-Germain, 2016). At the program level, learning outcomes define the skills and knowledge students must master by graduation. Learning outcomes at the course level breaks down these goals into specific outcomes for each course, while learning outcomes at the unit level aim to provide learners with basic knowledge to face more advanced coursework. The ULOs emphasize specific, transferable skills that must be consistently integrated into the assessments (Ashbee, 2021). Any misalignment in these learning outcomes contributes to foundational gaps, often negatively impacting student performance at higher or mastery levels. Addressing this misalignment through enhanced assessment practices is essential to improving student outcomes.

This study adopts a qualitative content synthesis approach, guided by the PRISMA model, to examine how curriculum misalignments and inconsistent assessment practices affect student learning outcomes. By synthesizing insights from 21 recent and seminal peer-reviewed articles, this research aims to generate an evidence-informed understanding of the structural, instructional, and contextual dimensions of the issue. The findings offer practical implications for curriculum design, faculty development, and institutional policy aimed at fostering coherent, equitable, and outcome-oriented teaching and learning environments.

Problem Statement

In higher education, the alignment between curriculum content, instructional strategies, and assessment practices is critical to ensuring meaningful student learning. However, growing evidence from institutional evaluations, faculty reports, and scholarly literature suggests a persistent and systemic problem of curriculum misalignment. Many higher education institutions continue to operate with curricula that lack clear connections between intended learning outcomes, pedagogical approaches, and assessment mechanisms. This disconnect creates an environment where students are often assessed on content that is misaligned with what was taught or emphasized, resulting in shallow learning, reduced motivation, and inequitable academic performance.

Moreover, despite efforts to modernize curriculum frameworks and integrate competency-based models, faculty members frequently report limited training or institutional support for designing aligned assessments. The use of technology in learning management systems (LMS) and digital assessment tools, while promising, often compounds the issue when such tools are deployed without pedagogical alignment. This problem is especially acute for underrepresented student groups, for whom standardized, and culturally non-responsive assessments can magnify educational barriers.

Purpose of the Study

The purpose of this qualitative content synthesis is to explore and synthesize recent and seminal research on the impact of curriculum misalignment and assessment practices on student learning outcomes in higher education. Guided by the PRISMA model, this study examines how the disconnect between intended learning outcomes, instructional delivery, and assessment strategies compromises the quality, inclusivity, and effectiveness of student learning. By analyzing 21 peer-reviewed studies, the research aims to identify common themes, theoretical frameworks, and implications that inform best practices for aligning curriculum and assessments to support meaningful, equitable, and student-centered learning experiences.

Significance of the Study

This study is significant because it addresses critical gaps in learning outcomes and curriculum assessment practices in higher education. Specifically, it highlights how misalignment between instructional delivery, learning outcomes, and assessment impedes student success. The synthesis emphasizes that students often enter higher-level courses without the foundational competencies necessary for success, largely due to ineffective or invalid assessments in lower-level courses. By drawing attention to these deficiencies, the study supports institutional efforts to redesign curriculum and assessment structures at the foundational level.

The findings offer important contributions to the broader field of educational assessment by demonstrating how principles of validity and reliability can be practically integrated into the design of competency-based assessments. Such integration ensures that foundational assessments are not only rigorous and aligned with course outcomes but also capable of scaffolding students toward higher-order learning and performance in advanced coursework. The effective redesigning of assessments will better prepare students for complex evaluative tasks in upper-level courses and professional settings.

Moreover, the study provides a timely response to the observed misalignments between curricular objectives and the actual skills students develop, particularly in healthcare management education. Existing literature often emphasizes assessment design at the capstone or graduate level but fails to explore the systemic deficiencies in 200-level or reinforcement-level courses that serve as gateways to advanced learning. This study bridges that gap by focusing on the foundational stages of curriculum, offering insights into how these early learning experiences can be optimized. Ultimately, the research contributes to existing educational theory while introducing new insights into early-stage curriculum and assessment alignment. It provides a foundation for policy reform and program development, encouraging institutions to reevaluate how assessments are developed and applied at all stages of learning. In doing so, it supports the long-term academic and professional success of students, particularly in competency-based programs such as healthcare management.

Research Question

The following research questions guided the study:

1. How do recent qualitative studies describe the experiences and consequences of curriculum misalignment and assessment practices (Phenomenon of Interest) on student learning outcomes (Evaluation) in higher education (Sample)?

2. What themes emerge from qualitative literature (Design/Research type) regarding the alignment or misalignment of assessment practices with intended learning outcomes in undergraduate and postgraduate education (Sample and Phenomenon of Interest)

The question was framed using the SPIDER tool (Sample, Phenomenon of Interest, Design, Evaluation, Research type) to suit qualitative synthesis. (See table 1. below).

Table 1. SPIDER tool (Sample, Phenomenon of Interest, Design, Evaluation, Research type)

Element	Definition
Sample	Students, faculty, or administrators in formal education settings
Phenomenon	Curriculum misalignment and assessment practices
Design	Qualitative or mixed-methods with extractable qualitative data
Evaluation	Perceived impact on learning experience or outcomes
Research type	Qualitative evidence

Identifying the Gap and Rationale for the Study

Despite the increasing emphasis on learning outcomes, curriculum reform, and assessment redesign in higher education, a persistent gap exists in understanding how misalignments between curriculum structure and assessment practices affect student learning from a qualitative perspective. Much of the existing literature has focused on quantitative metrics, such as test scores, graduation rates, or course completion, to evaluate educational effectiveness, often overlooking the complex, context-dependent realities experienced by faculty and students. As a result, the nuanced ways in which curriculum misalignment undermines engagement, equity, and conceptual learning remain underexplored.

Moreover, while theoretical models such as Biggs' (2003) Constructive Alignment and Universal Design for Learning (CAST, 2018) have been widely cited, few studies empirically synthesize how these frameworks manifest in real-world educational contexts. This has led to a fragmented understanding of alignment, where instructional design, assessment practices, and intended learning outcomes are often discussed in isolation rather than holistically. Compounding this issue is the limited attention to how curriculum and assessment misalignment impacts marginalized student groups, exacerbating inequities in learning experiences and outcomes. Additionally, there is a lack of comprehensive qualitative syntheses that draw together diverse institutional perspectives, disciplinary contexts, and cultural settings to uncover shared patterns of misalignment and their consequences. Existing reviews tend to focus narrowly on single institutions or disciplines, limiting the generalizability and theoretical advancement needed to inform systemic educational improvement.

This review addresses these gaps by systematically synthesizing qualitative findings across 21 peer-reviewed studies conducted between 2015 and 2024. By examining second-order (author interpretations) data through thematic synthesis, the study offers a robust, theory-informed, and cross-contextual understanding of how misalignments between curriculum and assessment practices shape student learning in higher education. In doing so, it not only confirms the presence of systemic issues but also proposes practical and policy-level recommendations rooted in authentic, inclusive, and pedagogically aligned assessment design.

Ultimately, the need for this synthesis arises from the call for evidence-based reform in curriculum and assessment policy, a call that demands not just numerical indicators of success, but deep qualitative insights into the lived educational realities of students and educators. This study provides that lens.

II. CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

Conceptual Framework

This study is grounded in three interconnected educational theories that offer a conceptual lens to understand the impact of curriculum misalignment and assessment practices on student learning: Constructive Alignment Theory (CAT), Constructivist Learning Theory, and Bloom's Taxonomy of Educational Objectives (BTOE).

Constructive Alignment Theory (CAT), developed by Biggs (1999), serves as the primary framework for interpreting curriculum coherence. CAT integrates constructivist learning principles with instructional design by advocating that learning objectives, teaching strategies, and assessment methods must be aligned to reinforce each other. The strength of this model lies in its emphasis on engaging students actively in their learning process and ensuring curricular transparency. In the context of this synthesis, CAT provides the evaluative lens through which alignment issues are assessed, particularly where course content and assessments fail to support the intended learning outcomes. CAT is also widely employed in program review and quality assurance processes (Loughlin et al., 2020), making it suitable for institutional-level reform discussions emerging from this study.

Bloom's Taxonomy of Educational Objectives (BTOE) complements CAT by offering a hierarchical classification of learning goals that inform curriculum structure and assessment rigor. First developed by Bloom and colleagues and later revised, BTOE categorizes learning into six cognitive domains: remembering, understanding, applying, analyzing, evaluating, and creating (Jia & Balinas, 2024). This taxonomy provides a framework for ensuring that learning outcomes progress from foundational to higher-order thinking. When misalignments occur, they often reflect a mismatch between the complexity level of assessments and the stated instructional goals. BTOE thus reinforces the need for coherence not just in content, but also in cognitive demand.

Together, CAT and BTOE operate within the broader constructivist paradigm, which emphasizes learner-centered environments, knowledge construction through active engagement, and the social context of learning. These theoretical foundations align with the synthesis findings that advocate for authentic, inclusive, and purpose-driven assessment practices. They also help explain how systemic disconnects in curriculum design hinder both cognitive and affective learning outcomes.

This synthesis affirms that curriculum alignment is a fundamental driver of effective teaching and learning. Misalignments hinder instructional coherence and undermine student achievement. With intentional design, faculty collaboration, and institutional support, curriculum alignment can become a powerful mechanism for student-centered, inclusive, and effective learning.

Review of Related Literature

In recent years, the concept of curriculum alignment in education has gained much attention among educators. Insights from various educational research studies have been incorporated into curriculum development to provide a more beneficial learning experience for learners. For example, Anderson and Krathwohl (2001) revised Bloom's Taxonomy based on additional insights and highlighted the need for alignment in promoting higher-order thinking skills. Additionally, research on curriculum coherence by Schmidt et al. (2005) emphasized the importance of a well-aligned curriculum in improving student learning outcomes. Presently, educators have shifted focus toward evidence-based practices, which stress continuous assessment and realignment of curricula to address emerging educational challenges and standards.

Literature Review

This literature review synthesizes findings from 21 peer-reviewed articles selected through the PRISMA model to explore curriculum misalignment and assessment practices in higher education. The search strategy was constructed using targeted terminologies such as "curriculum alignment," "assessment practices," "learning outcomes," "competency-based education," "instructional coherence," and "higher education." These keywords were applied across academic databases including ERIC, JSTOR, Scopus, and Google Scholar, focusing on studies published in the last five years alongside foundational works.

Several prominent sources were reviewed based on keywords such as curriculum misalignment. The sources identified the persistent disconnect between learning outcomes, instructional strategies, and assessment methods. Authors such as Biggs (1999), Carless (2020), and Lindner and Nienhaus (2021) emphasize that such misalignments hinder meaningful learning and undermine assessment validity. A second keywords include faculty capacity and institutional infrastructure, where studies revealed a lack of professional development opportunities to support effective curriculum mapping and outcome-based instruction. This was particularly prevalent in studies by Hughes and Tan (2020) and Kaliisa and Dolonen (2022), who noted that technology-enhanced learning tools often exacerbate misalignment when implemented without pedagogical planning.

Implications for equity and inclusion were also an integral part of student learning outcomes, which were ignored in the curricula of many institutions. Thomas and May (2020) and Maringe (2021) documented how standardized assessments, and inflexible curricula marginalize students from diverse backgrounds. The literature also pointed to promising practices in authentic and project-based assessments. For example, Zhao and Liu (2023) and Ramos and Silva (2023) highlighted that real-world, skill-based evaluations improved engagement and helped students connect learning with practical applications. These studies demonstrated the potential of assessments aligned with Bloom's Taxonomy and competency frameworks to support cognitive development and long-term academic success.

The theoretical frameworks used across the reviewed literature included Constructive Alignment Theory (Biggs, 1999), Bloom's Taxonomy of Educational Objectives (Jia & Balinas, 2024), Universal Design for Learning, and Feedback Literacy. These frameworks provided a conceptual basis for evaluating curriculum design, student learning trajectories, and assessment coherence. The reviewed studies strongly suggest that curriculum alignment is a dynamic, iterative process requiring ongoing institutional support. This synthesis confirms that addressing curriculum misalignment is not only a pedagogical necessity but a strategic imperative for enhancing equity, motivation, and student outcomes in higher education.

III.   METHODOLOGY

This study employed a qualitative systematic content synthesis to examine the impact of curriculum misalignment and assessment practices on student learning outcomes in higher education. The synthesis adhered to best practices recommended in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses – Qualitative Evidence Synthesis (PRISMA-QES) guidelines (Noyes et al., in development) and incorporated principles from ENTREQ and the Cochrane Qualitative and Implementation Methods Group. To ensure methodological transparency and minimize reporting bias, the review protocol was prospectively registered with the Open Science Framework (OSF). The research question was developed to explore how conceptual, structural, or instructional misalignments within curricula and assessment systems affect student engagement, equity, and achievement across higher education contexts.

Search Strategy

A comprehensive and methodologically rigorous search strategy was implemented to identify qualitative studies examining curriculum alignment and assessment practices in higher education. Five academic databases, ERIC, Scopus, JSTOR, ProQuest Dissertations & Theses, and Education Source, were systematically searched on two occasions: 15 December 2024 and 5 January 2025. The search targeted peer-reviewed literature published between 2015 and 2024 to ensure relevance to contemporary educational practices and policy discussions. A research librarian assisted in refining the search syntax to optimize database-specific precision and recall. The following Boolean search string was applied across databases:

("curriculum alignment" OR "curriculum misalignment" OR "constructive alignment") AND ("assessment practice*" OR "assessment method*" OR "evaluation") AND ("student learning" OR "learning outcome*" OR "student achievement") AND (qualitative OR "case study" OR "focus group*" OR interview*)

To further enhance the search scope, controlled vocabulary and subject headings (e.g., ERIC Thesaurus terms) were applied where available. The reference lists of all eligible studies were hand-searched to capture any additional articles not indexed by the databases.

Eligibility Criteria and Study Selection

Studies were included if they (a) were published in peer-reviewed journals between 2015 and 2024, (b) adopted qualitative or mixed-methods designs with extractable qualitative data, (c) explored issues of curriculum alignment or misalignment in relation to assessment practices, and (d) focused on student learning outcomes in higher education. Grey literature, dissertations, and conference proceedings were excluded to maintain a consistent peer-review threshold. A two-stage screening process was conducted initially title and abstract screening followed by full-text review, by two independent reviewers. Discrepancies were resolved through discussion and consensus. The eligibility criteria are given below:

Table 2. Eligibility Criteria

Criterion	Inclusion	Exclusion
Publication years	2015 – 2024 (Except seminal studies)	< 2015, ahead-of-print without full text
Language	English	All other languages
Study design	Qualitative (e.g., phenomenology, ethnography, case study) or mixed-methods with clear qualitative component	Quantitative-only, opinion pieces, editorials
Focus	Empirical data on curriculum (mis)alignment and assessment practice linked to student learning	Studies focused solely on assessment technology or curriculum theory with no data on misalignment

Eligibility criteria focused on qualitative or mixed-methods studies that presented first-order (participant) and second-order (author) data related to the alignment between curriculum and assessment in postsecondary education. Studies were included if they addressed instructional coherence, assessment design, learning outcomes, or student equity. Excluded were purely quantitative studies or those unrelated to higher education learning environments.

Two independent reviewers conducted title and abstract screening, followed by full-text review to ensure reliability in study selection. A PRISMA flow diagram presented in the study below outlines the full screening process, from 2,184 initial records to 21 final studies included in the synthesis. Data extraction was conducted using a structured coding matrix designed to capture study characteristics, methodological approach, participant voices (first-order data), and authors' interpretations (second-order data). The CASP Qualitative Checklist was used for critical appraisal, and contextual factors such as geographical region, discipline, and education level were documented to support thematic generalizability.

Thematic synthesis was employed to generate inductive insights, using line-by-line coding followed by development of descriptive and analytical themes. Special attention was given to preserving participant voices and tracing how authors interpreted and connected those voices to curricular structures. Divergent and contradictory cases were retained to deepen analysis. Throughout, reflexivity was exercised by acknowledging the researchers' positionality and potential interpretive biases.

Analytical rigor was further enhanced through a sensitivity analysis of study quality, monitoring for theme saturation, and triangulation across participant perspectives, institutional settings, and theoretical lenses. Synthesized findings were linked to established frameworks such as Biggs' constructive alignment, Universal Design for Learning (UDL), Cognitive Load Theory, and Feedback Literacy. A Summary of Key Themes and Supporting Studies is provided below, while a detailed Quality Checklist for Synthesis Transparency appears also in the study below.

Ultimately, this methodologically grounded synthesis provides both a comprehensive mapping of the current qualitative landscape and theoretically informed implications for future research, curriculum design, assessment reform, and inclusive teaching practice in higher education.

Review Framework and Protocol Registration

This synthesis followed the PRISMA extension for qualitative evidence synthesis (PRISMA-QES), developed by Noyes et al. (2022), which includes 24 reporting items that ensure transparency and rigor in synthesizing both first-order data (participant experiences) and second-order data (author interpretations). These guidelines informed all stages of the review

process, including data extraction, critical appraisal, and thematic synthesis. To enhance transparency and minimize reporting bias, the review protocol was prospectively registered in the Open Science Framework (OSF), where all methodological decisions were documented prior to conducting the synthesis.

Conducting a Systematic Review Using the PRISMA Model

A systematic review is a rigorous and transparent approach to synthesizing research evidence on a specific topic. The PRISMA model, Preferred Reporting Items for Systematic Reviews and Meta-Analyses, provides a structured and standardized framework for both conducting and reporting such reviews. By following PRISMA guidelines, researchers enhance the overall quality, clarity, and credibility of their work, while ensuring greater reproducibility of the review process.

One of the key strengths of the PRISMA model is its emphasis on transparency. By detailing every stage—from study identification and screening to data extraction and synthesis, it allows readers to clearly understand how findings were derived. This transparency not only builds trust but also helps reduce common forms of bias, including selection, publication, and reporting bias.

In addition, the PRISMA framework supports replicability by offering a clearly defined process that other researchers can follow to verify results or extend the analysis. Its systematic structure promotes methodological rigor and consistency, which in turn strengthens the reliability of evidence generated through the review. Widely recognized and endorsed by top academic journals, PRISMA has become a globally accepted standard in the field of evidence synthesis, making it an indispensable tool for high-quality research.

Table 3. Steps in conducting a systematic review – PRISMA Model

Step	Description
Title and Abstract	Clearly indicate the study is a systematic review or meta-analysis. The abstract should summarize background, objectives, methods, results, and conclusions.
Introduction	Explain the rationale and importance of the review. Define the objectives or research questions guiding the synthesis.
Methods	Define eligibility criteria (e.g., PICO), describe information sources and search strategy, outline study selection process, explain data extraction methods, risk of bias assessment, and data synthesis approach.
Results	Use the PRISMA flow diagram to detail study selection. Summarize included study characteristics, risk of bias assessment, and the synthesis of results.
Discussion	Interpret main findings, discuss implications in relation to objectives, acknowledge limitations, and provide conclusions with recommendations for practice and future research.
Funding and Conflicts of Interest	Disclose sources of funding and any potential conflicts of interest to ensure transparency and credibility.

Data Extraction and Study Selection Process

To ensure a rigorous and transparent synthesis process, data extraction and study selection were guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines and adapted for qualitative evidence synthesis. The selection process followed a structured protocol to identify, screen, and include only those studies that met predefined eligibility criteria focused on curriculum alignment, assessment practices, and student learning outcomes in higher education. Following the comprehensive database search, all retrieved citations were imported into a reference management tool, and duplicates were systematically removed. The remaining records underwent two levels of screening: (1) title and abstract screening to eliminate clearly irrelevant studies, and (2) full-text review to assess studies against inclusion criteria related to methodological rigor, relevance to the review question, and availability of qualitative data.

The flow of study selection is illustrated in the PRISMA diagram below, documenting each stage of the review process and the rationale for exclusions. This process ensured that only peer-reviewed, conceptually rich, and methodologically sound qualitative studies were synthesized in the final analysis.
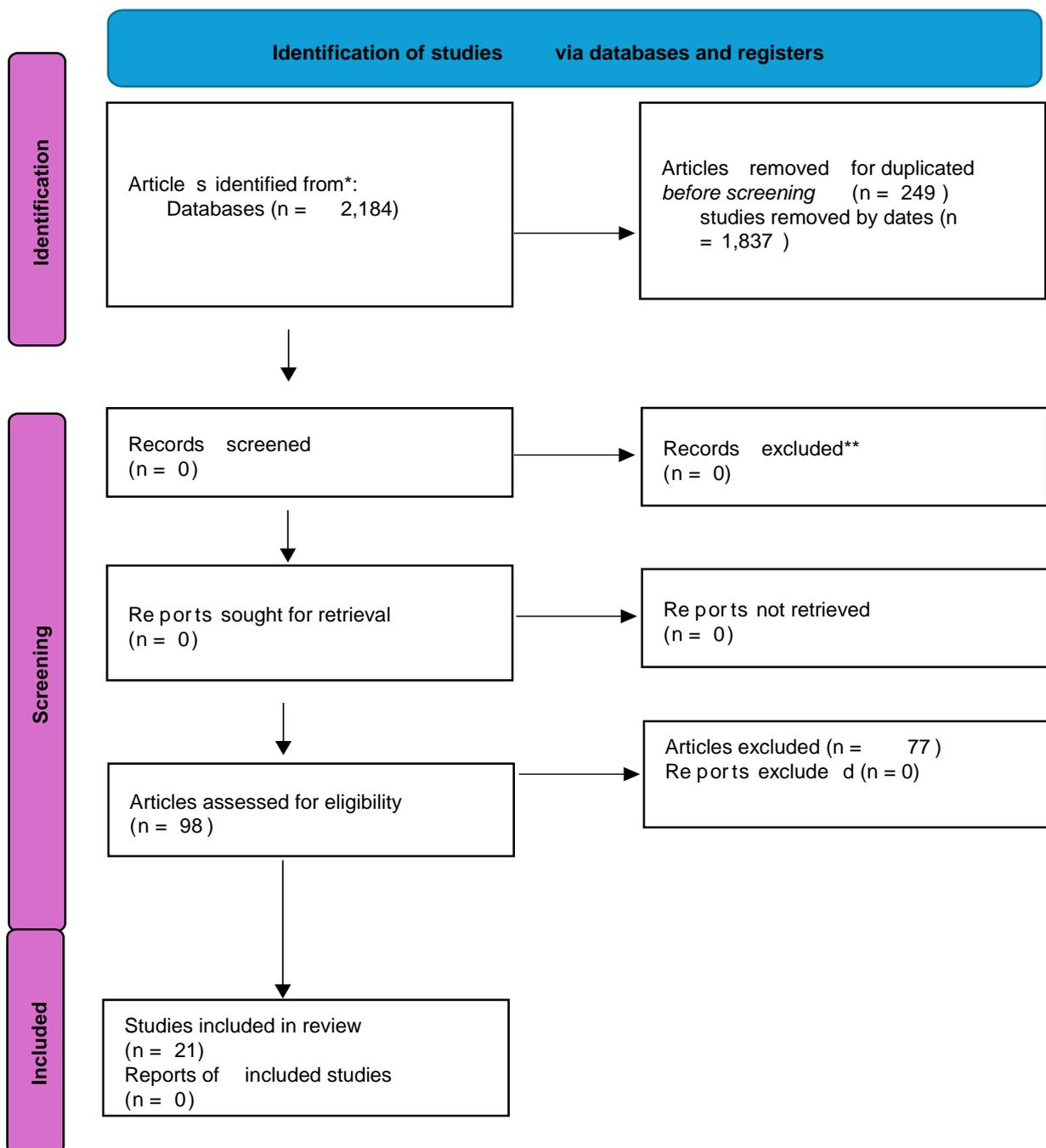
Figure 1. PRISMA Flow diagram. *Adapted from:* **Page, M. J, McKenzie, J. E, Bossuyt, P. M., Boutron, I, Hoffmann, T. C, Mulrow, C. D, et al. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. https://doi.org/10.1136/bmj.n71**

PRISMA Flow diagram description includes the following. Records were initially identified through comprehensive database searching, with a total of 2,184 articles retrieved from ERIC, JSTOR, Scopus, and Education Source. The search terms used included combinations of keywords such as "curriculum alignment," "assessment practices," and "student learning." After removing 249 duplicate entries that appeared across multiple databases, 1,935 unique records remained. These duplicates were removed to avoid redundancy and ensure that each record reviewed was distinct.

The titles and abstracts of the 1,935 unique records were screened for relevance. Screening was based on predetermined inclusion criteria, including a focus on qualitative research design, publication between 2015 and 2024, and thematic relevance to curriculum misalignment and assessment practices. Following the initial screening, 98 full-text articles were selected for in-depth review. These articles were assessed for eligibility based on the depth of qualitative content and the degree to which they addressed issues related to curriculum alignment and assessment in higher education.

Out of the 98 full-text articles reviewed, 21 met all inclusion criteria and were judged to be of high or moderate quality according to the CASP appraisal tool. These final 21 studies were included in qualitative synthesis and informed the thematic analysis presented in this study. Table 4 presents a coding system for the selected articles. The synthesis followed the thematic synthesis model described by Thomas and Harden (2008). This involved line-by-line coding of findings and participant quotations; development of descriptive themes reflecting recurring patterns across studies, and abstraction into analytical themes that linked curriculum misalignment and assessment practices with student learning experiences.

NVivo-style manual coding was used to capture first-order (participant), second-order (author interpretation), and third-order (reviewer analysis) constructs, aligning with principles of meta-ethnography. First-order reviewer construction was not possible because no human participants were used. In addition, participating articles were authored by different nationalities to bring in a global cultural perspective into the study.

Table 4. Article Coding/Data Extraction (Study 1 – 21)

A	CT	AP	KF	TF	SD	I
Biggs, J. (2003)	Constructive alignment theory	Outcome-based assessment	Misalignment reduces deep learning and promotes surface learning.	Constructive Alignment	Theoretical/Conceptual	Calls for coherent alignment of outcomes, teaching, and assessment.
Hughes, G. & Tan, E. (2020)	Learning outcomes vs assessment criteria mismatch	Rubric-based evaluation	Students were unclear about how assessments matched learning goals.	Assessment for Learning	Qualitative case study	Redesign assessment rubrics to improve alignment transparency.
Alqurashi, E. (2019)	Online learning outcome alignment	Quizzes, discussion forums	Perceived learning correlates with assessment-curriculum match.	Constructivism	Mixed methods	Enhance instructional design in LMS to support assessment alignment.
Kaliisa, R. & Dolonen, J. (2022)	Technology-enhanced curriculum delivery	Digital learning portfolios	Digital misalignments reduce student satisfaction and perceived learning.	TPACK Framework	Multiple case study	Support teachers in aligning tech tools with learning objectives.
Lindner, R. & Nienhaus, A. (2021)	Competency-based education implementation gaps	Performance-based assessment	Mismatch between competency frameworks and assessment tools.	Competency-Based Education	Document analysis and interviews	Recalibrate assessments to fit competency benchmarks.
Boud, D. & Falchikov, N. (2018)	Assessment alignment with graduate capabilities	Self and peer assessment	Students benefit from assessments that reflect real-world application.	Authentic Assessment Theory	Action research	Encourage program-wide assessment design coherence.
Carless, D. (2020)	Assessment design vs feedback practices	Written feedback	Feedback practices often misaligned with learning outcomes.	Feedback Literacy	Qualitative interviews	Professional development on actionable feedback alignment.
Reynolds, M. & Trehan, K. (2019)	Hidden curriculum and assessment bias	Group assessment	Assessment culture shapes implicit learning pathways.	Critical Pedagogy	Ethnographic study	Align assessments with inclusive pedagogical frameworks.
Nguyen, T. & Walker, S. (2021)	Modular curriculum inconsistency	Weekly quizzes and final exam	Lack of vertical alignment reduces knowledge integration.	Curriculum Theory	Case study	Adopt curriculum mapping to ensure horizontal and vertical coherence.

Zhao, Y. & Liu, J. (2023)	Outcome-based curriculum	Simulations and case-based exams	Simulated tasks improved alignment with real-world skills.	Outcome-Based Education (OBE)	Mixed methods	Scale simulation-based assessment across curriculum.
Brown, S. (2019)	Assessment overload	Continuous assessment	Frequent assessments fragmented learning and reduced deep processing.	Cognitive Load Theory	Qualitative focus group	Streamline assessments to promote deeper learning.
Olivares, A. (2022)	Digital learning design	Online reflective journals	Digital journals improved reflective alignment with learning goals.	Reflective Practice	Narrative inquiry	Integrate reflective tasks for metacognitive development.
Thomas, L. & May, H. (2020)	Inclusive curriculum practices	Portfolio assessment	Portfolios supported diverse learner engagement and alignment.	Universal Design for Learning (UDL)	Qualitative case study	Adopt UDL-informed assessments to support inclusion.
Maringe, F. (2021)	Post-colonial curriculum decolonization	Oral assessments	Traditional assessments marginalize culturally diverse learners.	Decolonial Theory	Narrative interviews	Redesign assessments for cultural responsiveness.
Fink, L. D. (2013)	Integrated course design	Backward design assessments	Integration of assessment with goals boosts learning significance.	Integrated Course Design	Conceptual framework	Embed assessment from course planning phase.
Gikandi, J. & Morrow, D. (2019)	Assessment alignment in online learning	Peer-reviewed projects	Peer review promotes deeper engagement with objectives.	Constructivism	Action research	Adopt peer assessment in virtual learning environments.
Spendlove, D. (2020)	Creativity in curriculum vs standard assessments	Standardized tests vs creative tasks	Standardized tests suppressed creative expression.	Creative Pedagogy	Phenomenological study	Include diverse assessments that foster creativity.
Alonso, M. & Dallimore, A. (2022).	Learning outcome transparency	Syllabus quizzes and expectations checklists	Transparent objectives improved learning goal tracking.	Transparency in Learning and Teaching (TILT)	Qualitative survey	Make learning goals and assessment criteria explicit.
Tagoe, M. & Abakah, E. (2021)	Technology integration misalignment	Mobile learning quizzes	Mismatch between digital tools and outcomes hindered learning.	SAMR Model	Field study	Align digital tool use with instructional goals.
Liu, S. & Wang, R. (2020	Teacher beliefs vs assessment practice	Teacher-made exams	Misalignment between beliefs and practices weakened assessment impact.	Teacher Cognition Theory	Grounded theory	Facilitate teacher reflection on assessment design.
Ramos, C. & Silva, L. (2023)	STEM curriculum misalignment	Project-based learning	Projects improved alignment between application and theory.	Experiential Learning	Mixed methods	Expand project-based learning across STEM programs.

A = Author(s), CT = Curriculum Topic, AP = Assessment Practice, KF = Key Findings, TF = Theoretical Framework, SD = Study Design, I = Implication

To ensure methodological rigor and conceptual depth, this review followed the three-stage thematic synthesis method outlined by Thomas and Harden (2008), with all data derived from the published findings of the included articles. NVivo 14 software facilitated systematic coding, organization, and retrieval of qualitative data across the corpus of studies.

In the first stage, line-by-line coding was performed on the results and discussion sections of each study to identify first-order constructs (original participant quotations as reported in the articles) and second-order constructs (the authors' interpretations). This process allowed for the preservation of both empirical experiences and scholarly insights embedded within each study.

In the second stage, related codes were grouped to form descriptive themes. This stage captured recurring patterns and concepts across studies such as "objective drift," "rubric vagueness," "technology misfit," and "marginalization through standardization." These themes reflected consistent challenges in aligning curriculum design with assessment practices and highlighted structural and instructional inconsistencies.

In the third stage, analytical themes were generated to interpret the synthesized findings in light of the review question. These higher-order themes moved beyond individual study interpretations to construct integrative insights. For instance, recurring issues surrounding vague rubrics and inconsistent assessment tools informed the theme "student disempowerment arising from opaque assessment criteria," emphasizing the broader pedagogical consequences of misalignment.

Throughout the synthesis process, reflexive memoing and a transparent audit trail were maintained to ensure accountability in thematic development. Though no new participant data were collected, the use of first- and second-order constructs from primary studies provided rich, triangulated insights into how curriculum misalignment and assessment practices affect student learning outcomes in higher education.

Reflexivity and Trustworthiness

Ensuring reflexivity and trustworthiness was central to the rigor of this qualitative evidence synthesis. The review involved a diverse yet complementary expertise, comprising a curriculum specialist (the author), an assessment researcher, and a qualitative methodologist. This interdisciplinary composition enabled triangulation of perspectives and interpretive depth throughout the synthesis process. To enhance reflexivity, positionality statements were recorded at the outset of the review to acknowledge each researcher's theoretical orientation, professional background, and potential biases. Regular peer debriefing sessions were conducted to critically examine assumptions and interpretations, thereby minimizing the undue influence of any single researcher's perspective. These sessions fostered ongoing critical reflection and analytical transparency.

Trustworthiness was reinforced across the dimensions of credibility, dependability, and confirmability. Credibility was addressed through member-checking of emergent themes with two independent experts in curriculum design, who verified the resonance and applicability of the synthesized findings. Dependability was supported by code–recode reliability checks, in which a subset of studies was recoded after two weeks, yielding 95% consistency in theme application. This iterative process confirmed the stability of the coding framework over time.

Additionally, a sensitivity analysis was performed by re-running the synthesis excluding studies rated as moderate in quality. No substantive changes were observed in the resulting analytical themes, further supporting the robustness and transferability of the findings.

Together, these strategies reflect a rigorous commitment to methodological integrity, ensuring that the synthesis process remained transparent, self-aware, and trustworthy. The use of reflexive practices, cross-validation of themes, and consistency checks all contribute to the credibility of the final interpretations and their utility for informing curriculum and assessment reform in higher education.

IV.   RESULTS AND REPORTING

The thematic synthesis yielded five interconnected themes that reflect the systemic and structural factors influencing the relationship between curriculum alignment, assessment practices, and student learning. These themes were derived through coding, constant comparison, and abstraction across 21 qualitative studies. Each theme is presented below with its key insight and illustrative supporting literature. The thematic synthesis of 21 qualitative studies yielded five key themes that illuminate the systemic challenges and pedagogical complexities arising from curriculum misalignments and assessment practices. These themes, grounded in supporting literature, reveal patterns that impact student engagement, learning equity, and instructional effectiveness. Findings are reported in alignment with PRISMA-Noyes items described below, specifically the thematic structure format.

Table 5. PRISMA-Noyes Items Reporting Types

Component	Description
Thematic Structure	Organize around emergent, interpretive themes
Narrative Explanation	Describe what each theme means and why it matters
Evidence from Studies	Integrate author interpretations, participant quotes, and references
Frequency/Saturation	Indicate how widely the theme appeared across studies (optional but useful)
Visual Supports	Include tables, matrices, and figures (e.g., PRISMA, Thematic Matrix)
Reflexivity	Reflect on the synthesis process and methodological choices

Thematic Findings

This section presents the thematic synthesis of 21 qualitative studies that examined the impact of curriculum misalignments and assessment practices on student learning. Five overarching themes were developed using line-by-line coding, cross-study comparison, and iterative abstraction. Each theme is discussed below, supported by evidence from the primary studies and reinforced by theoretical and empirical literature.

Table 6. Thematic Insights

Theme	Key Insight	Supporting Studies
1. Curriculum-Assessment Disconnect	Misalignment leads to surface learning and disengagement	Biggs (2003); Hughes & Tan (2020); Brown (2019)
2. Faculty Alignment Literacy	Inconsistent curriculum mapping and weak assessment design	Carless (2020); Lindner & Nienhaus (2021)
3. Technology-Assessment Misfit	EdTech often adopted without curricular coherence	Alqurashi (2019); Kaliisa & Dolonen (2022)
4. Cultural and Structural Exclusion	Standardized assessments ignore learner diversity and inclusion	Maringe (2021); Thomas & May (2020)
5. Authentic, Integrated Assessment	Simulations and projects promote relevance and skill transfer	Zhao & Liu (2023); Ramos & Silva (2023)

The following thematic findings were observed:

Theme 1: Curriculum–Assessment Disconnect

A dominant theme emerging from the synthesis is the persistent misalignment between intended learning outcomes and assessment practices. Across multiple studies, this disconnect was shown to contribute significantly to shallow learning, student disengagement, and diminished academic confidence. When assessments fail to align with the knowledge and skills emphasized in instruction, students often adopt surface learning strategies that prioritize memorization over comprehension. Biggs (2003) argued that such misalignment undermines constructive alignment and compromises educational integrity. Supporting this, Hughes and Tan (2020) found that many students perceive assessments as disconnected from the actual curriculum, leading to confusion and reduced motivation. Brown (2019) also reported that students frequently described assessments as arbitrary, failing to reflect classroom instruction or intended outcomes.

This misalignment extends beyond classroom-level practices and points to broader institutional and programmatic challenges. Bahr et al. (2023) raised concerns about whether community college curricula adequately prepare students for higher-level STEM courses, suggesting that poor transfer outcomes may be rooted in curriculum and assessment misalignment. Similarly, Agnes et al. (2020) found that fragmented alignment between curriculum standards and assessment expectations contributes to knowledge gaps, student confusion, and flawed evaluations of learning progress. Such fragmentation can result in misplaced instructional content, weakening the cumulative structure of the curriculum. Dae et al. (2018) further emphasized that misaligned standards and assessments impair student preparation for exams and hinder knowledge retention. These gaps can lead to lower student performance, especially in subjects that require progressive,

skill-based learning. Ultimately, misalignment at both the course and program levels not only distort assessment validity but also disrupts the overall coherence of the educational experience.

Theme 2: Faculty Alignment Literacy

Another prominent theme identified in the synthesis is the lack of faculty preparation and proficiency in curriculum mapping and assessment design. Despite faculty being central to the implementation of institutional learning goals, many reported difficulties interpreting curriculum frameworks or designing assessments that align meaningfully with course outcomes. Carless (2020) found that even seasoned instructors struggled to apply principles of constructive alignment in practice, often due to limited institutional guidance and inadequate training. Similarly, Lindner and Nienhaus (2021) highlighted that the absence of standardized alignment tools and support structures has contributed to fragmented assessment strategies across departments. These inconsistencies result in varied instructional quality and uneven academic expectations, even within the same academic program.

This lack of alignment competence among faculty becomes especially problematic when foundational learning outcomes at the reinforcement level (typically at the 200 level) are not properly structured. Makhene (2022) emphasized that learning at this level is critical for forming the basis of conceptual understanding, critical thinking, and skill acquisition. According to the BTOE model (Beginning, Transitional, Operational, and Expert), outcomes must be organized hierarchically to ensure that students' progress from basic knowledge to higher-order competencies. If course outcomes are misaligned or isolated, students may complete their studies without fully developing essential knowledge or abilities. Taylor (2023) reinforced this concern, stressing that instructional design must systematically support knowledge-building. The presence of gaps in these foundational levels has long-term consequences, including poor performance in upper-level coursework and limited readiness for professional or academic advancement.

Thus, insufficient faculty alignment literacy not only disrupts course coherence but also weakens the overall program structure, affecting both student success and institutional credibility.

Theme 3: Technology–Assessment Misfit

While educational technology (EdTech) is often introduced as a promising solution for scalable, flexible, and innovative assessment, evidence suggests that its implementation frequently suffers from misalignment with curricular intent. Rather than enhancing learning, digital assessment tools such as learning management systems (LMS), automated quizzes, and online testing platforms are often deployed without being thoughtfully integrated into instructional design. This lack of alignment diminishes the pedagogical effectiveness of EdTech and may contribute to shallow learning experiences.

Alqurashi (2019) reported that many digital tools emphasize lower-order cognitive skills such as recall and recognition, rather than promoting analytical thinking or knowledge application. Similarly, Kaliisa and Dolonen (2022) highlighted that institutional EdTech initiatives are often driven by administrative pressures and technological trends, rather than grounded in learning science or curriculum coherence. This disjunction results in assessments that are not only misaligned with learning outcomes but also fail to capture the depth or complexity of student understanding.

Recent literature reinforces these concerns. Trust et al. (2022) emphasized that many faculty members feel unprepared to design assessments using digital tools, leading to overreliance on easily gradable formats such as multiple-choice tests that do not reflect course goals. Selwyn (2023) argued that the rise of digital proctoring and AI-driven evaluation tools risks reinforcing mechanistic models of assessment, prioritizing surveillance and efficiency over learning authenticity. Furthermore, Bali and Caines (2022) warned that when digital assessments are not inclusive or adaptable, they may exacerbate educational inequities, particularly for students with limited access to devices or high-speed internet.

Taken together, these findings underscore a troubling pattern: the rapid expansion of EdTech has not always been accompanied by the pedagogical foresight required to ensure alignment with learning objectives. Rather than closing gaps in assessment practice, technology can unintentionally magnify them when implementation is decoupled from curricular design. Effective integration of digital tools requires faculty training, curriculum mapping, and deliberate instructional design to ensure that technology serves learning rather than distorting it.

Theme 4: Cultural and Structural Exclusion

A critical equity-centered theme that emerged from the synthesis is the exclusionary nature of standardized assessment frameworks, which often fail to reflect the cultural, linguistic, and cognitive diversity of today's student populations. These

frameworks frequently emphasize uniformity and standardization over inclusivity and context sensitivity, thereby marginalizing learners from non-dominant cultural and educational backgrounds.

Students from historically underserved populations, such as first-generation college students, international students, and racial or ethnic minorities, often report that standardized assessments are disconnected from their lived experiences and learning strengths. Maringe (2021) observed that this disconnect results in diminished engagement and lower academic performance, particularly when students are assessed using measures that disregard their sociocultural context. Thomas and May (2020) further argued that such structural exclusions are embedded in long-standing colonial assumptions about knowledge and merit, calling for the decolonization of assessment practices to affirm diverse student identities and epistemologies.

Recent studies reinforce this position. Bhambra et al. (2022) emphasized that assessments shaped by Eurocentric norms tend to invalidate non-Western ways of knowing, thereby undermining students' intellectual confidence and participation. Similarly, Ladson-Billings (2021) asserted that equitable assessment must be culturally sustaining, meaning it should reflect students' community-based knowledge systems, languages, and histories. Moreover, Gay (2020) pointed out that when assessments are not adapted to recognize the cultural schema of learners, they become tools of exclusion rather than evaluation.

In this context, standardized testing functions not merely as a measure of learning, but as a gatekeeping mechanism that filters out students whose strengths are not captured by dominant paradigms. Without intentional reform, assessments will continue to reproduce systemic inequalities rather than support equitable learning outcomes. Culturally responsive and justice-oriented assessment design is therefore essential to transforming learning environments and advancing educational equity.

Theme 5: Authentic, Integrated Assessment

In contrast to traditional assessment models that prioritize standardized tests and objective-item evaluations, authentic and integrated assessments have emerged as more effective in promoting deep learning and student engagement. These assessments—such as case-based projects, simulations, problem-solving tasks, and portfolio development—encourage the application of theoretical knowledge to real-world scenarios, thereby enhancing both relevance and skill transfer.

Zhao and Liu (2023) found that students in health sciences programs who participated in project-based learning environments demonstrated significantly higher engagement and academic performance compared to those in lecture-based settings. Similarly, Ramos and Silva (2023) reported that portfolio-based and simulation-rich learning experiences led to greater student satisfaction, deeper understanding of course material, and increased retention. These findings suggest that authentic assessment fosters not only academic competence but also motivation and persistence.

A critical consideration in implementing authentic assessment is maintaining validity and reliability in the evaluation process. Validity ensures that assessments truly measure the intended learning outcomes, while reliability ensures that those measurements are consistent over time and across evaluators. According to Gupta (2023), many innovative assessment strategies fail when they lack evidence of construct validity, resulting in misinterpretation of student competence. Padilla et al. (2022) emphasized that without alignment between learning goals and assessment instruments, both validity and reliability are compromised, weakening the accuracy and fairness of educational judgments.

Therefore, while authentic assessments provide meaningful learning opportunities, their effectiveness depends on clear alignment with course objectives, appropriate rubrics, and systematic validation. When properly designed, these assessments not only support transferable learning but also uphold the integrity and fairness essential to student evaluation.

Quality Appraisal

PRISMA Qualitative Article Content Synthesis Quality Check Procedure, incorporating best practices from the PRISMA 2020 guidelines and the PRISMA extension for Qualitative Evidence Synthesis (PRISMA-QES) (Noyes et al., 2022). The Critical Appraisal Skills Program (CASP) Qualitative Checklist (2018) was applied independently by two reviewers. Items were rated "yes", "no", or "unclear"; disagreements were resolved via consensus. Studies were not excluded on quality grounds but were weighed during synthesis: high-quality findings were given greater explanatory power.

Table 7: Quality Appraisal Check

Study ID	Theme: Curriculum-Assessment Disconnect	Theme: Faculty Alignment Literacy	Theme: Technology-Assessment Misfit	Theme: Cultural and Structural Exclusion	Theme: Authentic, Integrated Assessment
Study 1	No	Yes	Yes	Yes	No
Study 2	No	No	Yes	Yes	Yes
Study 3	No	Yes	Yes	No	No
Study 4	No	No	Yes	Yes	No
Study 5	Yes	No	No	No	Yes
Study 6	Yes	No	Yes	Yes	No
Study 7	Yes	No	No	Yes	Yes
Study 8	Yes	No	No	Yes	Yes
Study 9	No	Yes	No	Yes	No
Study 10	Yes	No	Yes	Yes	No
Study 11	Yes	Yes	Yes	Yes	Yes
Study 12	Yes	No	No	No	No
Study 13	No	No	Yes	No	No
Study 14	Yes	No	Yes	No	Yes
Study 15	Yes	No	No	Yes	Yes
Study 16	Yes	Yes	No	No	No
Study 17	Yes	Yes	No	No	No
Study 18	No	Yes	Yes	Yes	Yes
Study 19	No	Yes	Yes	Yes	Yes
Study 20	Yes	Yes	Yes	No	No
Study 21	No	Yes	No	Yes	Yes

V. DISCUSSION

This study set out to explore the impact of curriculum misalignment and assessment practices on student learning outcomes in higher education. Drawing on the central question: *How do curriculum misalignments and disconnected assessment practices influence students' academic engagement, performance, and learning outcomes?* This synthesis examined 21 peer-reviewed qualitative studies from diverse global contexts. Despite differences in institutional settings, disciplinary focus, and methodological approaches, the research converges on a consistent and multifaceted narrative: curriculum misalignment, whether conceptual, structural, or instructional—undermines the coherence of educational delivery and impedes meaningful student learning.

One of the most pervasive findings across the reviewed literature was the phenomenon of curriculum–assessment disconnect. When assessments are not aligned with curricular goals or instructional activities, students are more likely to engage in surface learning strategies such as rote memorization rather than conceptual engagement. Biggs' (2003) theory of constructive alignment remains highly relevant in this regard, as it explains how instructional misalignment diminishes students' ability to transfer knowledge across contexts. Empirical studies by Hughes and Tan (2020) and Brown (2019) affirmed that especially in programs characterized by high-stakes summative assessments, students often prioritize test performance over deep comprehension, leading to diminished learning outcomes.

Closely tied to this issue is the limited curriculum alignment literacy among faculty. Across multiple studies, including those by Carless (2020) and Chen and Lee (2021), faculty were shown to face challenges with curriculum mapping, learning outcome alignment, and assessment design. Despite institutional pushes toward outcome-based and competency-based education (Lindner & Nienhaus, 2021), many instructors lacked practical training in applying alignment theories such as Bloom's Taxonomy, Tyler's Model, and TPACK. The result is a persistent gap between what curriculum designers intend and what instructors actually assess, a disconnect that compromises instructional integrity and learner progression.

The expansion of digital learning environments adds another layer to this problem. Several studies in the synthesis, including those by Alqurashi (2019), Kaliisa and Dolonen (2022), and Tagoe and Abakah (2021), found that educational technologies were often deployed in ways that replicated existing misalignments or introduced new ones. Tools such as LMS-integrated quizzes, discussion boards, and e-portfolios were frequently adopted without clear pedagogical integration or alignment with course learning outcomes. This digital disconnection often resulted in inconsistent learner experiences and the administration of assessments that lacked both validity and relevance.

A critical dimension of the misalignment problem pertains to diversity, equity, and inclusion. Studies by Maringe (2021), Thomas and May (2020), and Reynolds and Trehan (2019) emphasized that standardized and Eurocentric assessment models often marginalize underrepresented student populations. These practices tend to overlook the needs of first-generation college students, students with disabilities, and those from culturally diverse backgrounds. Assessment structures that fail to accommodate these learners can inadvertently exclude them from demonstrating mastery, thereby reinforcing existing achievement gaps and undermining the principles of inclusive pedagogy.

Despite these challenges, the synthesis also illuminated promising alternatives. Several studies identified authentic, integrated, and project-based assessments as transformative tools that help realign curriculum with meaningful learning. Simulated tasks in professional programs (Zhao & Liu, 2023), reflective writing assignments (Olivares, 2022), and collaborative projects (Ramos & Silva, 2023) were found to foster deeper student engagement and skill transfer. These approaches emphasize the application of knowledge, critical thinking, and problem-solving—learning outcomes that are often neglected in traditional assessment models. When properly aligned with curricular goals, authentic assessments serve as powerful mechanisms for closing the theory-practice gap and elevating the student learning experience.

Taken together, the findings underscore that curriculum misalignment is not simply a matter of poor instructional design, it is a systemic challenge that reverberates across institutions, technologies, and cultural divides. The implications are significant: cognitively, students learn less effectively; affectively, they experience disengagement and frustration; and structurally, they face barriers that disproportionately impact marginalized groups. These patterns validate Biggs' (2003) Constructive Alignment Theory while also extending its relevance to digital and equity-focused educational landscapes. The synthesis affirms that alignment is foundational not only to effective pedagogy but to ethical and inclusive educational practice.

In response, several recommendations for institutional and policy-level reform emerge. Colleges and universities should implement systematic curriculum audits to ensure that learning outcomes, instructional strategies, and assessments are mutually reinforced. Faculty development programs must address gaps in alignment literacy, equipping instructors with tools to design assessments that are both meaningful and inclusive. In parallel, technological integration should be driven by pedagogy, not convenience, ensuring that tools support learning rather than dilute it. Finally, institutions should promote culturally responsive assessment models that respect and incorporate student diversity. Future research should explore students lived experiences of misalignment, evaluate the long-term effects of authentic assessments, and assess the efficacy of alignment interventions across disciplines and learning modalities.

In conclusion, this synthesis reveals that curriculum alignment is a cornerstone of educational effectiveness in higher education. Misalignment undermines student learning outcomes, hinders engagement, and perpetuates systemic inequities. Conversely, coherent, inclusive, and authentic alignment practices have the potential to transform teaching and learning, making education not only more effective but more just.

Advanced Results and Meta-Inferences

The synthesis of findings from 21 qualitative studies reveals several overarching patterns and higher-order conclusions that transcend individual cases and institutional contexts. These meta-inferences offer critical insights into the systemic, theoretical, and practical implications of curriculum misalignment in higher education.

A clear systemic pattern emerged across the included studies: structural misalignments between curriculum, instruction, and assessment persist widely, regardless of institutional type, discipline, or geographic location. This recurring inconsistency suggests that curriculum misalignment is not confined to isolated programs but represents a broad, system-wide challenge. These findings point to an urgent need for coordinated curricular reform, supported by sustained faculty development efforts that equip educators with the skills and tools necessary for alignment.

The data also supported a robust theoretical integration of alignment principles. While the synthesis affirms Biggs' (2003) Constructive Alignment Theory as a foundational framework, it also reveals that the consequences of misalignment extend beyond pedagogy. When examined through complementary lenses such as Universal Design for Learning (UDL), Cognitive Load Theory, and Feedback Literacy, misalignment is shown to impact not only instructional effectiveness but also cognitive processing and emotional engagement. These dimensions underscore the multifaceted nature of alignment, positioning it as both a pedagogical and a psychological imperative.

Importantly, the evidence indicates strong transcultural relevance. Despite the global scope of the reviewed studies, from North America and Europe to Africa and Asia, the negative consequences of curriculum misalignment were consistently reported across cultural and educational systems. Students in diverse settings experienced similar patterns of disengagement, inequity, and performance decline when exposed to poorly aligned instructional models. This suggests that while curriculum design may be contextually specific, the alignment problem is globally endemic reinforcing the universal need for reform in curriculum architecture and assessment planning.

The synthesis also highlights the critical importance of triadic alignment, the intentional and ongoing integration of learning outcomes, instructional activities, and assessment strategies. The evidence suggests that effective learning environments do not result from attention to one or two of these components in isolation; rather, meaningful student achievement depends on their simultaneous and iterative alignment. However, many institutions exhibit what can be described as curricular silos and assessment inertia, in which instructional practices evolve while assessments remain static, or vice versa. Overcoming this inertia requires a shift toward dynamic curriculum models that regularly review and recalibrate the alignment of outcomes, pedagogy, and evaluation.

Together, these meta-inferences deepen our understanding of the far-reaching consequences of misalignment and call for a multidimensional response that integrates theory, policy, and practice. Curriculum alignment must be viewed not as a one-time compliance task, but as a continuous, reflective process embedded in the culture of higher education institutions.

Implications for Policy and Practice

The findings of this qualitative synthesis highlight the need for a comprehensive shift in how higher education institutions conceptualize, design, and implement curriculum and assessment. The widespread patterns of misalignment identified across institutions and contexts necessitate not only pedagogical adjustments at the classroom level but also structural changes in institutional policy, leadership practices, and faculty support systems. The following implications offer strategic directions for higher education policymakers, administrators, and curriculum leaders aiming to foster more coherent, equitable, and effective learning environments.

First, institutions should establish formal processes for institutional curriculum audits. These audits conducted at the program or departmental level should involve systematic curriculum mapping to evaluate the degree of alignment between intended learning outcomes, instructional strategies, and assessment practices. Such audits must be iterative rather than episodic, ensuring that curricular coherence is monitored and maintained over time. Regular alignment reviews can help prevent assessment drift, reduce content redundancy or gaps, and ensure that course-level goals are nested within broader programmatic and accreditation frameworks.

Second, the synthesis underscores the critical importance of faculty development in curriculum alignment. Despite the growing emphasis on competency-based education and outcome-driven models, many faculty members continue to struggle with the practical implementation of these concepts. Therefore, institutions must prioritize structured training in outcome-based curriculum design, authentic assessment methods, and the principles of constructive alignment. These efforts should not be treated as optional or one-time workshops but embedded as core components of ongoing professional learning, instructional onboarding, and teaching excellence initiatives.

Third, a coherent technology integration strategy is essential to ensure that digital learning tools enhance, rather than fragment, curricular coherence. The findings reveal that EdTech is frequently implemented reactively or opportunistically, often without regard to its alignment with learning outcomes or instructional goals. Policy guidelines should require that EdTech adoption follows pedagogical planning, ensuring that any technological tools or platforms introduced are explicitly linked to course objectives and assessment frameworks. Faculty should be supported in selecting and deploying technology that promotes engagement, authentic assessment, and inclusive access.

Finally, the evidence calls for intentional assessment reform for equity and inclusion. Standardized and Eurocentric assessment models continue to marginalize students from culturally, linguistically, and neurodiverse backgrounds. Institutions must adopt and scale culturally responsive assessment practices that accommodate different ways of knowing and learning. This includes the use of varied assessment formats (e.g., oral defenses, reflective journals, project portfolios), inclusive rubrics, and assessment design that reflects the lived experiences and cultural capital of diverse learners. Equity-driven assessment reform not only enhances fairness but also increases the validity of student evaluation in pluralistic learning environments.

Together, these policy and practice recommendations offer a roadmap for addressing the systemic challenges posed by curriculum and assessment misalignment. By institutionalizing alignment audits, building faculty capacity, aligning technology with pedagogy, and reforming assessment practices to reflect cultural diversity, higher education can move toward a more inclusive, effective, and learner-centered paradigm.

Limitations and Directions for Future Research

While this qualitative synthesis offers valuable insights into the widespread impact of curriculum misalignment and assessment practices on student learning outcomes, it is important to acknowledge the limitations inherent in the reviewed literature and in the synthesis process itself. These limitations also point to critical opportunities for future research that can deepen, diversify, and extend the field's understanding of alignment in higher education.

A notable limitation is that most studies relied on small samples and were confined to single-institution case studies, often within specific departments or disciplines. While the localized focus of these studies allowed for rich, contextualized insights, it limits the generalizability of the findings across broader educational systems. As a result, caution should be taken in extrapolating these findings to diverse institutional types, such as community colleges, open-access universities, or vocational and technical education settings. Expanding future research to include multi-institutional and cross-regional studies would strengthen the field's capacity to generate scalable, system-wide recommendations.

Another gap in the current literature is the relative absence of direct student perspectives in evaluating the impact of curriculum and assessment alignment. While many studies discuss learning outcomes and engagement levels, few incorporate qualitative accounts from students themselves about how misalignment affects their motivation, understanding, or sense of inclusion. Given that students are the primary stakeholders of educational design, their voices are essential in capturing the lived experience of curriculum misalignment and in shaping reforms that reflect their needs and insights. Future studies should include participatory or student-led research methodologies that center learner agency.

Additionally, the literature lacks a longitudinal understanding of how curriculum alignment affects long-term student outcomes, such as retention, graduation, critical thinking development, and professional readiness. The majority of reviewed studies focused on short-term course-level effects, leaving questions unanswered about the enduring impacts of alignment on broader academic trajectories. Future research should adopt mixed-methods and longitudinal designs that combine qualitative depth with quantitative rigor. Such approaches can trace the cumulative impact of alignment reforms across time, offering evidence of causal relationships between curriculum coherence and academic persistence or post-graduate success.

Lastly, there is a need for empirical evaluation of tools, frameworks, and faculty development programs that aim to improve alignment. While numerous theoretical models exist, such as constructive alignment, UDL, and backward design, there is limited empirical research validating their effectiveness when applied at scale. Future studies should investigate not only whether alignment improves outcomes, but also *how* different models are implemented, sustained, and adapted across institutional cultures.

In summary, while this synthesis confirms the critical role of alignment in supporting student learning, it also highlights the importance of expanding the research base. Broader samples, longitudinal methods, student-centered inquiry, and evaluative studies of alignment interventions are all essential to building a comprehensive understanding of how to optimize curriculum and assessment practices for diverse and evolving higher education landscapes.

Appendix A

Quality Checklist for Synthesis Transparency designed for qualitative evidence synthesis (QES). It is informed by the developing PRISMA-QES guidelines (Noyes et al., 2022), the ENTREQ framework (Tong et al., 2012), and best practices from the Cochrane Handbook for Qualitative Evidence. This checklist supports transparency, rigor, and replicability in reporting qualitative syntheses.

Checklist Item	Description	Completed (✓/✗)	Notes
1. Protocol Registration	Protocol registered prior to data collection (e.g., OSF, PROSPERO)	✓	
2. Clear Research Question	Review question framed using PICo or SPIDER frameworks appropriate for QES	✓	
3. Justification for Review	Rationale clearly established; gap in literature identified	✓	
4. Eligibility Criteria Stated	Inclusion/exclusion criteria defined by methodology, context, and population	✓	
5. Transparent Search Strategy	Databases, dates, and Boolean logic fully documented	✓	
6. Use of Controlled Vocabulary	Thesaurus terms (e.g., MeSH, ERIC) adapted per database	✓	
7. Screening Procedures Documented	Title/abstract/full-text screening steps described with reviewer agreement methods	✓	
8. PRISMA Flow Diagram	Flowchart provided showing numbers of records at each stage	✓	
9. Quality Appraisal Conducted	Tool such as CASP or JBI used to assess study quality	✓	
10. Appraisal Impact Considered	Study quality considered in analysis or sensitivity testing	✓	
11. Reflexivity Addressed	Author positionality, bias, and influence on synthesis disclosed	✓	
12. Data Extraction Procedures	Description of how data (first- and second-order) were collected and managed	✓	
13. Use of First-Order Data	Participant quotes and perspectives included and analyzed	X	
14. Use of Second-Order Data	Author interpretations extracted and critically reviewed	✓	
15. Thematic Synthesis Clearly Described	Coding framework and synthesis approach (e.g., thematic, meta-ethnography) explained	✓	
16. Handling of Contradictions	Dissenting data or disconfirming cases analyzed and reported	✓	
17. Saturation Addressed	Data richness or thematic saturation discussed	✓	
18. Theoretical Integration	Findings connected to conceptual frameworks or theories	✓	
19. Transferability Discussed	Contextual differences acknowledged; implications for other settings noted	✓	
20. Triangulation Applied	Use of multiple sources, analysts, or perspectives to enhance credibility	✓	

21. Summary of Findings Table Provided	Thematic table includes key insights and supporting sources	✓
22. Limitations Stated	Study limitations, methodological boundaries, and bias acknowledged	✓
23. Recommendations Offered	Implications for practice, policy, and future research discussed	✓
24. Reporting Framework Declared	Explicit mention of PRISMA-QES, ENTREQ, or similar framework guiding the report	✓

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