

Exit Exams and Curriculum Design in Higher Education: A Systematic Review

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Abstract: As a standard for evaluating students' preparedness for graduation and professional practice, exit exams have emerged as a crucial element of higher education. Based on a thorough examination of 30 studies from various academic databases, this systematic review investigates how exit exams affect curriculum design. To ensure methodological rigor, the review uses the PRISMA framework, which identifies important themes like curriculum alignment with exit exam requirements, the impact of high-stakes testing on instructional strategies, and the function of exit exams in quality assurance. Findings show that exit exams can influence curriculum changes, especially when it comes to matching academic material to professional competencies and industry standards. But there are drawbacks as well, like stress from tests, a focus shift in the curriculum, and disparities in student performance. The review emphasizes the necessity of a well-rounded curriculum that incorporates exit exam preparation with more general learning objectives. Future research directions and implications for educational practice are also covered. Findings reveal that exit exams can drive curriculum reforms, particularly in aligning educational content with industry standards and professional competencies. However, challenges such as exam-related stress, narrowing of curriculum focus, and inequities in student outcomes are also highlighted. The review underscores the need for balanced curriculum design that integrates exit exam preparation with broader educational goals. Implications for educational practice and future research directions are also discussed.

Kata Kunci: Exit exams, curriculum design, higher education, quality assurance, high-stakes testing, PRISMA

Introduction

Exit exams, also known as culminating assessments, have gained prominence in higher education as a mechanism for ensuring that graduates meet specific academic and professional standards. These exams are designed to evaluate students' mastery of the knowledge and skills required for their respective fields, thereby serving as a quality assurance tool for educational institutions. The growing emphasis on accountability in higher education has led to the widespread adoption of exit exams, particularly in professional programs such as medicine, engineering, and pharmacy (Dehury, 2017; Siddiqui et al., 2023).

The relationship between exit exams and curriculum design is complex and multifaceted. On one hand, exit exams can drive curriculum reforms by aligning educational content with industry standards and professional competencies (Aniley, 2023; Khan et al., 2023). On the other hand, the high-stakes nature of these exams can lead to a narrowing of the curriculum, with educators focusing predominantly on exam-related content at the expense of broader educational goals (French et al., 2023; Merki, 2011). Additionally, exit exams can exacerbate inequities in student outcomes, particularly for those from disadvantaged backgrounds (Bracey, 2009; Warren & Grodsky, 2008).

This systematic review aims to synthesize existing research on the impact of exit exams on curriculum design in higher education. By examining a wide range of studies, the review seeks to identify key trends, challenges, and opportunities associated with the implementation of exit exams. The review is guided by the following research questions:

1. How do exit exams influence curriculum design in higher education?
2. What are the positive and negative impacts of exit exams on teaching and learning practices?
3. How can curriculum design be optimized to balance exit exam preparation with broader educational goals?

The review is structured as follows: Section 2 outlines the methodology, including the PRISMA framework and the process of study selection. Section 3 presents the results, highlighting key findings from the reviewed studies. Section 4 discusses the implications of these findings for curriculum design and educational practice. Section 5 concludes with recommendations for future research.

Method

This systematic review adheres to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency, reproducibility, and methodological rigor. The PRISMA framework was chosen due to its widespread acceptance and its ability to provide a structured approach to systematic reviews in educational research.

A comprehensive search was conducted across multiple academic databases, including Google Scholar, PubMed, ERIC, and Web of Science. The search terms used included "exit exams," "curriculum design," "higher education," "quality assurance," and "high-stakes testing." Boolean operators (AND, OR) were employed to refine the search results. The search was limited to peer-reviewed articles published in English between 1994 and 2024.

Studies were included if they met the following criteria:

1. Focused on the impact of exit exams on curriculum design in higher education.
2. Provided empirical evidence or theoretical insights relevant to the research questions.
3. Published in peer-reviewed journals.

Studies were excluded if they:

1. Focused exclusively on primary or secondary education.
2. Did not address the relationship between exit exams and curriculum design.

3. Were not available in full text.

The initial search yielded 1,250 articles. After removing duplicates, 950 articles remained. These articles were screened based on their titles and abstracts, resulting in the exclusion of 700 articles that did not meet the inclusion criteria. The remaining 250 articles were subjected to a full-text review, during which 220 articles were excluded for reasons such as lack of relevance, insufficient empirical data, or focus on primary/secondary education. Ultimately, 30 articles were included in the final review.

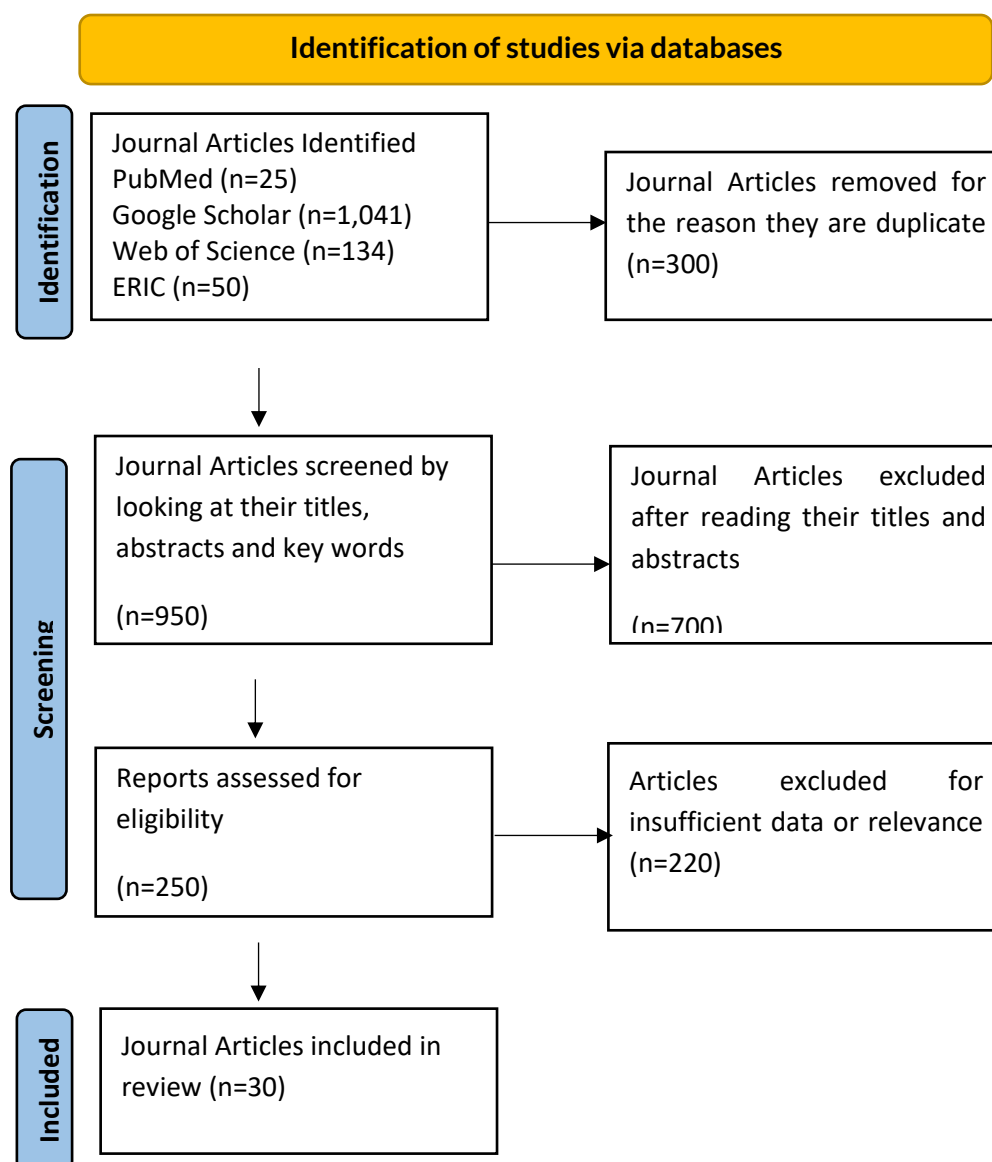


Figure 1. The PRISMA Framework

Data from the included studies were extracted using a standardized form, capturing information on the author(s), year of publication, study objectives, methodology, key findings, and implications for curriculum design. Thematic analysis was employed to identify recurring themes and patterns across the studies. The findings

were synthesized to address the research questions and provide a comprehensive overview of the impact of exit exams on curriculum design.

Result and Discussion

Table 1, depicts the summary of the extraction of the author(s) and year, the objective of the study, methodology used, major findings, and the impact of exit exams on the design of higher education curriculum.

Table 1. Summary of the extraction on the impact of exit exams on curriculum design.

Author(s) and Year	Objective of the Study	Methodology Used	Major Findings	Impact of Exit Exams on Curriculum Design
(Ackeren et al., 2012)	To examine the impact of statewide exit exams in three German states with different exam regimes.	Descriptive case study	Exit exams influence teaching practices and student outcomes, with low-stakes exams having less pressure but still affecting curriculum alignment.	Low-stakes exams may lead to minimal changes in curriculum design, while high-stakes exams may drive more rigorous alignment.
(Al Ahmad et al., 2014)	To explore exit exams as an academic performance indicator.	Quantitative analysis	Exit exams are effective indicators of academic performance and can help identify areas for improvement.	Exit exams can lead to curriculum adjustments to address identified weaknesses.
(Aniley, 2023)	To review exit exam strategies and their role in quality assurance and employability.	Literature review	Exit exams can enhance quality assurance and employability if integrated with industry needs.	Curriculum design may shift to include more practical and industry-relevant content.
(Aristeidou et al., 2024)	To explore student acceptance and satisfaction with online	Survey and qualitative analysis	Students generally accept online exams, but satisfaction depends on the	Online exit exams may lead to curriculum adjustments to incorporate

	exams in higher education.		exam design and support provided.	digital literacy and online assessment methods.
(Athiworakun & Adunyarittigun, 2022)	To investigate washback effects of exit exams on teaching at the higher education level.	Case study	Exit exams can influence teaching methods, often leading to more exam-focused instruction.	Curriculum may become more exam-oriented, potentially narrowing the focus to tested content.
(Ayenew & Yohannes, 2022)	To assess practices, challenges, and prospects of higher education exit exams in Ethiopia.	Mixed methods (qualitative and quantitative)	Exit exams face challenges in implementation but have the potential to improve educational quality if properly managed.	Curriculum design may need to adapt to better prepare students for exit exams.
(Benner, 2013)	To examine the impact of exit exams on adolescents' developmental outcomes.	Quantitative analysis	Exit exams can negatively impact students' developmental outcomes, particularly for those who struggle academically.	Curriculum design may need to address the psychological and developmental impacts of high-stakes testing.
(Bishop, 1999)	To assess the importance of national exit exams for educational efficiency.	Comparative analysis	National exit exams can improve educational efficiency by setting clear standards.	Curriculum design may align more closely with national standards and benchmarks.
(Bracey, 2009)	To evaluate the claim that exit exams improve graduation rates.	Literature review	Exit exams may discourage graduation for some students, particularly those from disadvantaged backgrounds.	Curriculum design may need to provide additional support for at-risk students to pass exit exams.

(Carol A. & Brown, 1994)	To develop an exit exam for criminal justice graduating seniors	Case study	Exit exams can be effective tools for assessing student readiness for graduation in specific fields.	Curriculum design may be tailored to ensure students meet the specific competencies tested in exit exams.
(Christina & Moorthy, 2021)	To explore multiple entry and exit options in degree courses as per NEP 2020.	Policy analysis	Multiple entry and exit options can increase flexibility in higher education but require careful implementation.	Curriculum design may become more modular to accommodate multiple entry and exit points.
(Dehury, 2017)	To evaluate the role of exit exams in ensuring quality for medical graduates.	Literature review	Exit exams can ensure quality but may also create stress and need to be carefully designed to reflect real-world medical practice.	Curriculum design may focus more on practical skills and competencies required for medical practice.
(Dempster, 2012)	To compare exit-level examinations in four African countries.	Comparative analysis	Exit exams vary widely across countries, and their effectiveness depends on local context and implementation.	Curriculum design may need to be adapted to local educational contexts and standards.
(El-Hassan et al., 2021)	To assess student perceptions of curriculum-based exit exams in civil engineering.	Survey and qualitative analysis	Students perceive curriculum-based exit exams as beneficial for assessing their readiness for professional practice.	Curriculum design may align more closely with professional standards and competencies.
(Fanjoy et al., 2005)	To evaluate the role of exit exams in	Case study	Exit exams can certify competency but may be seen as	Curriculum design may need to ensure exit exams are

	college flight programs.		redundant if not aligned with program goals.	aligned with program objectives and industry standards.
(French et al., 2023)	To review the benefits and drawbacks of high-stakes final examinations in higher education.	Literature review	High-stakes exams can motivate students but may also create stress and narrow the curriculum focus.	Curriculum design may need to balance exam preparation with broader educational goals.
(Hughes et al., 2015)	To explore challenges in university-industry partnerships.	Case study	University-industry partnerships can enhance curriculum relevance but face challenges in alignment.	Curriculum design may incorporate more industry-relevant content and skills.
(Khan et al., 2023)	To review the role of pharmacy exit exams in advancing pharmacy practice in India.	Literature review	Pharmacy exit exams can uplift the profession by ensuring graduates meet competency standards.	Curriculum design may focus on ensuring students meet the competencies required for pharmacy practice.
(Leigh, 2012)	To explore the use of exit slips as a teaching tool.	Qualitative analysis	Exit slips can enhance student reflection and engagement, providing valuable feedback for curriculum adjustments.	Curriculum design may incorporate more formative assessment tools like exit slips.
(Merki, 2011)	To examine the effects of state-wide exit exams on students' self-regulated learning.	Quantitative analysis	Exit exams can negatively impact students' self-regulated learning, particularly in	Curriculum design may need to foster self-regulated learning skills alongside exam preparation.

(Palmer et al., 2010)	To assess the use of modified essay questions in exit exams.	Case study	high-stakes environments. Modified essay questions can be effective in assessing higher-order thinking skills in exit exams.	Curriculum design may incorporate more complex, open-ended assessments to prepare students for such exams.
(Piopiunik et al., 2013)	To examine the impact of central school exit exams on labor-market outcomes.	Quantitative analysis	Central exit exams can improve labor-market outcomes by ensuring students meet certain standards.	Curriculum design may align more closely with labor-market needs and standards.
(Rosqvist et al., 2022)	To review instruments used in nursing students' exit exams.	Integrative review	A variety of instruments are used in nursing exit exams, and their effectiveness depends on alignment with professional competencies.	Curriculum design may focus on ensuring students are prepared for the specific instruments used in exit exams.
(Siddiqui et al., 2023)	To evaluate the role of pharmacy exit exams in advancing pharmacy practice in India.	Literature review	Pharmacy exit exams can improve the quality of pharmacy education and practice if well-designed.	Curriculum design may focus on ensuring students meet the competencies required for pharmacy practice.
(Slomp et al., 2020)	To examine the consequences of medium-stakes large-scale exit exams	Policy analysis	Medium-stakes exams can have both positive and negative consequences, depending on their design and implementation.	Curriculum design may need to balance the stakes of exams with broader educational goals.

(Teshome, 2024)	To conduct a systematic literature review on exit exams in higher education.	Systematic literature review	Exit exams have both positive and negative effects, and their impact depends on design, implementation, and context.	Curriculum design may need to be flexible to accommodate the diverse impacts of exit exams.
(University of Munich, Germany & Woessmann, 2018)	To examine the impact of central exit exams on student outcomes.	Quantitative analysis	Central exit exams improve student outcomes by setting clear standards and expectations.	Curriculum design may align more closely with central standards and benchmarks.
(Warren & Grodsky, 2008)	To assess the impact of exit exams on students who fail or pass them.	Quantitative analysis	Exit exams harm students who fail them and do not significantly benefit those who pass.	Curriculum design may need to provide additional support for students at risk of failing exit exams.
(Weir, 2010)	To evaluate the use of entry/exit exams as assessment tools in journalism programs.	Pretest/posttest assessment	Entry/exit exams can be effective tools for assessing student learning and program effectiveness.	Curriculum design may incorporate more formative and summative assessments to prepare students for entry/exit exams.
(Yimer & Bishaw, 2023)	To review challenges and measures of exit exams in Ethiopian higher education institutions.	Literature review	Exit exams face implementation challenges but can enhance quality assurance if properly designed and implemented.	Exit exams can drive curriculum reforms to align with quality assurance standards.

The reviewed studies reveal several key themes related to the impact of exit exams on curriculum design in higher education. These themes include the alignment of curriculum with exit exam requirements, the influence of high-stakes testing on teaching practices, and the role of exit exams in quality assurance.

Alignment of Curriculum with Exit Exam Requirements

A significant finding across the studies is the role of exit exams in driving curriculum reforms. Several studies highlight how exit exams can lead to the alignment of educational content with industry standards and professional competencies (Aniley, 2023; Khan et al., 2023). For example, in the field of pharmacy, exit exams have been shown to encourage curriculum adjustments that ensure students meet the competencies required for professional practice (Siddiqui et al., 2023). Similarly, in medical education, exit exams have prompted a greater focus on practical skills and real-world medical practice (Dehury, 2017).

However, this alignment is not without challenges. Some studies suggest that the high-stakes nature of exit exams can lead to a narrowing of the curriculum, with educators focusing predominantly on exam-related content at the expense of broader educational goals (French et al., 2023; Merki, 2011). This phenomenon, often referred to as "teaching to the test," can limit students' exposure to a well-rounded education and hinder the development of critical thinking and problem-solving skills.

Influence of High-Stakes Testing on Teaching Practices

The reviewed studies also highlight the impact of high-stakes exit exams on teaching practices. Several studies suggest that exit exams can lead to more exam-focused instruction, with educators prioritizing content that is likely to appear on the exam (Athiworakun & Adunyarittigun, 2022; Bishop, 1999). This shift in teaching practices can have both positive and negative consequences. On the positive side, it can ensure that students are well-prepared for the exam and meet the required standards. On the negative side, it can lead to a reduction in the diversity of teaching methods and a focus on rote memorization rather than deep learning (Merki, 2011).

Role of Exit Exams in Quality Assurance

Exit exams are often viewed as a tool for quality assurance in higher education. Several studies emphasize the role of exit exams in ensuring that graduates meet specific academic and professional standards (Yimer & Bishaw, 2023; Al Ahmad et al., 2014). For example, in the field of nursing, exit exams have been used to assess students' readiness for professional practice and ensure that they meet the competencies required for licensure (Rosqvist et al., 2022).

However, the effectiveness of exit exams as a quality assurance tool depends on their design and implementation. Some studies suggest that poorly designed exit exams can create stress for students and fail to accurately assess their readiness for professional practice (Dehury, 2017; French et al., 2023). Additionally, exit exams can

exacerbate inequities in student outcomes, particularly for those from disadvantaged backgrounds (Bracey, 2009; Warren & Grodsky, 2008).

Discussion

The findings of this systematic review underscore the complex relationship between exit exams and curriculum design in higher education. While exit exams can drive curriculum reforms and serve as a tool for quality assurance, they also pose significant challenges, particularly in terms of their impact on teaching practices and student outcomes.

Balancing Exam Preparation with Broader Educational Goals

One of the key challenges identified in the reviewed studies is the need to balance exam preparation with broader educational goals. While exit exams can ensure that students meet specific academic and professional standards, they can also lead to a narrowing of the curriculum and a focus on rote memorization rather than deep learning (French et al., 2023; Merki, 2011). To address this challenge, educators and policymakers must strive to design curricula that integrate exit exam preparation with a broader range of educational experiences. This could include incorporating more formative assessments, such as exit slips, which can provide valuable feedback for curriculum adjustments (Leigh, 2012).

Addressing Inequities in Student Outcomes

Another important consideration is the impact of exit exams on student outcomes, particularly for those from disadvantaged backgrounds. Several studies suggest that exit exams can exacerbate inequities in student outcomes, with students from disadvantaged backgrounds being more likely to fail these exams (Bracey, 2009; Warren & Grodsky, 2009). To address this issue, educators and policymakers must consider the broader social and economic factors that contribute to these inequities and design curricula that provide additional support for at-risk students. This could include incorporating culturally relevant teaching practices, which have been shown to help students pass exit exams, particularly in reading (Ackeren et al., 2012).

The Role of Context in Exit Exam Implementation

The reviewed studies also highlight the importance of context in the design and implementation of exit exams. The effectiveness of exit exams depends on a variety of factors, including the local educational context, the stakes associated with the exam, and the alignment of the exam with professional standards (Dempster, 2012; Slomp et al., 2020). For example, in some contexts, low-stakes exit exams may not significantly improve student outcomes, while in others, high-stakes exams may drive more rigorous

curriculum alignment (Ackeren et al., 2012). As such, educators and policymakers must consider the specific context in which exit exams are being implemented and design curricula that are tailored to the needs of their students and institutions.

Conclusion

Using a thorough analysis of 30 studies, this systematic review investigated how exit exams affect the design of higher education curricula. The results show that exit exams have the power to influence curriculum changes, especially when it comes to matching academic material to professional competencies and industry standards. However, the emphasis on rote memorization, curriculum narrowing, and unequal student outcomes can also result from the high stakes of these tests. Teachers and policymakers must work to create curricula that strike a balance between exam preparation and more general educational objectives, offer extra assistance to students who are at risk, and take into account the particular context in which exit exams are being used in order to answer these issues. They can guarantee that exit exams function as a tool for quality assurance by doing this.

The findings of this review have several important implications for educational practice. First, educators should strive to design curricula that integrate exit exam preparation with a broader range of educational experiences, including formative assessments. Second, policymakers should consider the broader social and economic factors that contribute to inequities in student outcomes and design curricula that provide additional support for at-risk students. Finally, educators and policymakers should consider the specific context in which exit exams are being implemented and design curricula that are tailored to the needs of their students and institutions.

While this review provides valuable insights into the impact of exit exams on curriculum design, several areas for future research remain. First, more research is needed on the long-term impact of exit exams on student outcomes, particularly in terms of their career readiness and professional success. Second, future studies should explore the role of context in the design and implementation of exit exams, particularly in low-resource settings where the stakes associated with these exams may be higher. Third, more research is needed on the impact of exit exams on teaching practices, particularly in terms of how educators balance exam preparation with broader educational goals. Finally, future studies should explore the potential of alternative assessment methods, such as portfolios and capstone projects, as a complement or alternative to traditional exit exams. By addressing these gaps in the literature, future research can provide valuable insights into how exit exams can be designed and implemented to support the broader goals of higher education.

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