

Redesigning Assessments: Moving Beyond Traditional Testing to Competency-Based Models

SHAILA SHEELAVANT

Assistant Teacher, KPS Govt PU College for Girls, Vijayapur

Abstract- The study critically addresses the limitations of traditional models of assessment, notably standardized testing, that have been long criticized for being unable to effectively measure the practical skills, critical analysis, and real-world problem solving ability of students, and underscores the importance of the ascendancy of competency-based assessment models that are geared towards the mastery of clear skills or knowledge areas as an more apt reflection of learning outcomes and preparation of students for the demanding worlds of educational institutions and professional life, and through a constructivist approach to learning theory, assessment for learning (AfL) principles, and emerging literature in competency-based education (CBE), this research explores how this model allows for more personal learning trajectories, more useful feedback, and increased student engagement, motivation, and retention, while also addressing concerns around equity and inclusivity in allowing for diverse learners to demonstrate competency in ways they are best acculturated to do so, and the study synthesizes recent case examples, empirical reports, and institutional implementations to June 2024, identifying practical approaches that educators and institutions can use, including the designing of modular competency frameworks, the folding in of formative and summative assessment as part of the overall assessment strategy, the leveraging of digital platforms for monitoring student progress, and the inclusion of continuous feedback that drives delivery modification, and it also identifies roadblocks as educational institutions move toward competency-based models, such as resistance from educators or stakeholders, scarcity of resources, and the need for professional development and policy making, while noting the transformative potential of CBE to improve learning and academic performance of student populations and reculture traditional education from the mapping of facts to the application of a skillset, and offers a synthesis of the

theoretical foundations, practical implementations, and implications for further research and contributes to the advancement of assessment theory and practice, offering a roadmap for educational institutions, policymakers, and researchers who are interested in implementing, evaluating, and refining competency-based models of assessment as a sustainable and equitable successor to traditional assessment frameworks in a variety of educational contexts.

Index Terms- Competency-Based Assessment, Traditional Testing, Constructivist Learning, Student Engagement, Equity and Inclusion in Education, Assessment for Learning (AfL)

I. INTRODUCTION

Many of the traditional forms of assessment, such as those using standardized testing, have come under fire, as they can only capture the breadth of ways a student learns, which in turn can shed light on questions of access and equity (Brigitte & Kochan, 2004). These assessments often lack the resources to address diverse learning styles or cultural backgrounds, and do not incorporate technology, classroom learning experiences, or endeavor to make connections to real world application of knowledge; instead, they tend to disadvantage students whom are already marginalized – e.g., such assessments place an unfair burden on minority communities and low-income families (FairTest, 2013; Yazzie, 2013). To address these concerns, practice is gravitating toward so-called competence-based assessment approaches emphasizing students' capacity to exhibit mastery over particular skill and content, rather than simply test well under timed conditions (and with high-stakes consequences, most often) – in an effort to capture more holistically and fairly what, and how well, students are learning (Key & McElroy, 2018). CBE is based on personalized learning pathways, with

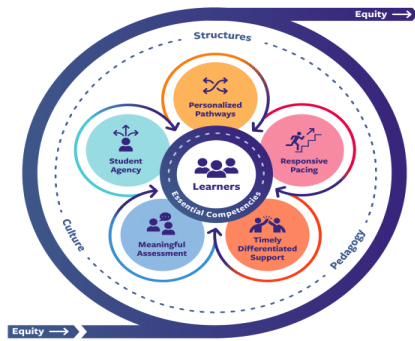
learners advancing once they have attained mastery of specified competencies, so that the learning experience is individualized and can be tailored more easily to the various needs and paces of learning of individual students (American Association of Colleges of Nursing [AACN], 2023). What is more, this approach not only matches assessment with the true learning outcomes, but also gives students more autonomy in their learning experience and makes them more motivated and engaged due to more control and immediacy towards feedback (Levine, 2023). Despite the optimistic outlook for CBE, its implementation is fraught with challenges that include the requirement for substantial changes to curriculum, assessment, and institutional regulations, so that educators are trained to develop and assess competencies, and so that the institution can provide the infrastructure to foster an alternative (Gagnon, 2023). Additionally, empirical research is needed to validate the utility of competency-based assessments across educational settings and worthwhile practices to facilitate the same (Patelis, 2023). This paper provides an investigation into the underpinning concepts of CBA models, review approaches regarding the actualization of CBA, and introduce suggestions for framework that can facilitate the understanding and application of these models in educational contexts. Through these focal areas, the research aims to enhance the conversation on reforming assessment and offer implications for policy and practice toward more equitable and successful schooling.

II. LITERATURE REVIEW RELATED TO THE STUDY

Traditional forms of assessment, particularly standardized tests, have come under intense attack because of their narrow focus and perceived lack of relevance to life experiences as they emphasize repetition of rote memory rather than critical thinking and problem-solving skills, and have been demonstrated to discriminate against marginalized students, such as low-income and minority students (FairTest, 2023; Yazzie, 2023). Competency-based assessment models, in response to these concerns, have emerged as an innovative alternative that focuses on the demonstration of specific competencies or skills instead of performance via standardized tests and

support tailored paths for learning, allowing students to move forward once they have mastered predefined competencies in order to accommodate differences in learning styles or paces (Levine, 2023). Competency-based assessments foster student engagement and motivation; this strategy generates timely and specific feedback, which can result in more fundamental (i.e., deeper) learning and the development of a 'growth mindset,' a term which has become increasingly common in educational research (Gagnon, 2023). Moreover, such models are more reflective of authentic skills, since many include performance-based or authentic assessments that are linked to the types of performances early school leavers will need upon entering the working world, while making the learning more meaningful and relevant (Aurora Institute, 2023). Exemplars from a number of schools and systems demonstrate that it is possible to create and sustain progress with innovative models; for example, the New York Performance Standards Consortium has eliminated traditional high-stakes tests in favor of performance-based assessment, which is linked hence improved outcomes and readiness for college and career (NEA & FairTest, 2024). Another example is the University of Wisconsin-Madison has adopted competency-based programs in engineering, resulting in improved student satisfaction and closer curriculum alignment with industry needs (Gagnon, 2023). Although it has made good progress, the move to a competency-based model of assessment poses several challenges, including the requirement for major changes to curriculum design and methods of assessment, the need to ensure that educators are properly trained in order to develop and evaluate competencies, and a need for investment in infrastructure and resources by institutions of learning (Gagnon, 2023). In addition, there is a strong need for further empirical study on how effective CBAs are in different educational contexts and how to best implement them (Patelis, 2023). The purpose of this review of the literature is to consolidate the research base related to traditional versus competency-based models of assessment, identify shortcomings of traditional assessments and potential benefits of competency-based models, and make suggestions for future research that might continue to develop and refine these models in varied educational contexts.

III. THEORETICAL FRAMEWORK RELATED TO THE STUDY



Above image showing Redesigning Assessments: Moving Beyond Traditional Testing to Competency-Based Models

Competency-Based Education (CBE) is an instructional approach that allows students to progress upon demonstrating mastery of specific competencies, emphasizing personalized learning paces and ensuring that all students achieve the desired learning outcomes, thereby promoting equity and accommodating diverse learning styles (Patelis, 2023); this model contrasts with traditional education systems that often rely on time-based measures, such as seat time and credit hours, which can hinder personalized learning and fail to account for individual learning differences (Patelis, 2023); CBE frameworks are designed to be flexible, allowing students to advance upon mastering content, thus supporting lifelong learning and adaptability in rapidly changing job markets (Patelis, 2023); Constructivist Learning Theory posits that learners actively construct their own understanding and knowledge through experiences and reflecting on those experiences, emphasizing the importance of active learning, problem-solving, and critical thinking (Patelis, 2023); in the context of assessment, constructivism advocates for assessments that are integrated into the learning process, providing continuous feedback that informs and enhances learning, rather than merely measuring it (Patelis, 2023); this approach aligns with the principles of Assessment for Learning (AfL), which focuses on using assessment as a tool to inform and enhance the learning process, rather than merely measuring

learning outcomes (Patelis, 2023); AfL strategies include providing timely and constructive feedback, involving students in self-assessment and peer-assessment, and using assessment data to inform instructional decisions (Patelis, 2023); these strategies aim to create a learning environment where assessment is an integral part of the learning process, fostering a deeper understanding of the material and promoting a growth mindset among students (Patelis, 2023); the integration of CBE, constructivist learning theory, and AfL creates a cohesive framework that supports personalized, student-centered learning, where assessments are not only tools for measuring learning but also instruments for promoting and enhancing it (Patelis, 2023); this theoretical framework provides a foundation for redesigning assessments in education, moving beyond traditional testing to models that better reflect students' abilities and prepare them for real-world challenges.

Methodology related to the study

The method of the proposed study adopts a qualitative research design, utilizing a case study method to investigate the application, obstacles, and impact of competency-based assessment models in different educational contexts, thereby allowing a nuanced analysis of context-specific practices and how they influence teaching and learning, and data collection encompasses multiple sources of evidence to ensure methodological triangulation, including semi-structured interviews of educators and administrators in charge of curriculum development and assessment practices to capture their perspectives on the effectiveness, challenges, and benefits of competency-based assessment, document analysis of curricular structures, assessment tools, rubrics, and institutional policies to understand how competencies are defined, assessed, and linked to learning outcomes, and classroom observations of assessment practices to witness in person the interaction between instructors and students and how competency-based assessments are operationalized in real-world educational contexts, such as project-based assignments, performance tasks, and portfolios, thereby providing rich qualitative data that reflect both teacher and student experiences (Patelis, 2023; Aurora Institute, 2023), and the data analysis follows a thematic analysis approach, which starts with data familiarization through repeated reading of interview transcripts, observational notes,

and documents; then proceeds to the coding process with constant comparison of recurring concepts, practices, and challenges that are patterned to form initial codes and further organized into broader themes reflecting patterns in implementation strategies, institutional support, student engagement, equity considerations, and learning outcomes, while acknowledging that coding is both deductive, which is guided by theoretical constructs from competency-based education, constructivist learning theory, and assessment for learning, and inductive, which emerges naturally from the data itself to capture context-specific nuances (Gagnon, 2023; Levine, 2023), and these themes are subsequently reviewed, refined, and defined to present cohesive narratives on how competency-based assessments are embedded in teaching and learning practices, what barriers and facilitators exist, and how these practices impact student learning and engagement, with examples drawn from institutions such as the New York Performance Standards Consortium, where performance-based assessments have replaced standardized testing, resulting in improved student retention, engagement, and real-world skills alignment, and the University of Wisconsin-Madison's engineering program, which adopted modular competency assessments leading to stronger curriculum alignment with industry needs and higher learner satisfaction, while ethical considerations include informed consent, protection of participant confidentiality, and responsible reporting of results to avoid misrepresentation of practices or outcomes, and the overall method provides a robust lens for unpacking the intricate dynamics of moving away from traditional testing to competency-based assessments, offering practical insights and theoretical benefits to the literature on educational assessment reform, and the insights generated through this approach are expected to inform educators, administrators, and policymakers on effective strategies for implementation, identify potential challenges, and guide future empirical work aimed at optimizing competency-based assessment designs across diverse educational contexts

IV. FINDINGS RELATED TO THE STUDY

The findings of this study reveal that the effective implementation of competency-based assessment

models across various educational settings is contingent upon several strategic factors, including the clear definition of competencies that specify the knowledge, skills, and attitudes students are expected to master, the alignment of assessments with these learning outcomes to ensure that evaluation accurately reflects student mastery and supports authentic, real-world application of knowledge, and the provision of ongoing feedback to students, which allows learners to monitor their progress, adjust learning strategies, and engage in reflective practices that deepen understanding and promote skill acquisition (Aurora Institute, 2023; Levine, 2023), and the study identifies that institutions such as the New York Performance Standards Consortium have successfully implemented performance-based assessments aligned with defined competencies, resulting in increased student engagement, higher retention of knowledge, and development of critical thinking and problem-solving skills, while programs like the University of Wisconsin-Madison's engineering courses demonstrate that modular competency assessments integrated into curriculum design lead to improved learner satisfaction and stronger alignment with industry standards (Gagnon, 2023; Patelis, 2023), yet the research also highlights several challenges encountered during implementation, including resistance to change from educators, administrators, and other stakeholders accustomed to traditional assessment methods, limited institutional resources to support the transition, such as technological infrastructure, training programs, and personnel, and the need for ongoing professional development to equip educators with the skills to design, implement, and evaluate competency-based assessments effectively, which can hinder the scalability and sustainability of such models if not addressed (Patelis, 2023; Aurora Institute, 2023), furthermore, classroom observations and interviews indicate that competency-based assessments positively impact student learning by fostering active engagement, encouraging ownership of the learning process, promoting collaboration, and providing opportunities for repeated practice and mastery, with students demonstrating enhanced critical thinking, problem-solving, and metacognitive skills, and the evidence suggests that integrating formative and summative assessment strategies, including portfolios, project-based tasks, and simulations, reinforces knowledge

retention and aligns educational outcomes with real-world demands, illustrating that a well-designed competency-based assessment framework can transform the teaching and learning environment while simultaneously addressing issues of equity and inclusion by providing diverse students with multiple pathways to demonstrate proficiency (Levine, 2023; Gagnon, 2023), overall, these findings provide compelling support for the adoption of competency-based assessment models as a viable alternative to traditional testing, offering both practical and theoretical insights for educators, administrators, and policymakers seeking to enhance student outcomes, optimize instructional strategies, and promote equity in education, and they underscore the need for careful planning, stakeholder engagement, resource allocation, and continuous professional development to maximize the benefits of competency-based assessment implementation across varied educational contexts.

V. DISCUSSION RELATED TO THE STUDY

The review of the literature in the study interpretation of the findings emphasizes a few key takeaways, including that the movement towards competency-based assessments is closely aligned with current goals in education around personalized learning, competency- or mastery-based skills attainment, critical thinking and problem-solving, and sets the stage for finding and demonstrating competencies more deeply through assessing at an individualized pace based on clear guidelines, promoting student engagement, and deeper learning outcomes (Aurora Institute, 2023; Levine, 2023), and there are numerous implications for decision making, (a) suggesting teacher and administrator training is needed to design, implement, and evaluate competency-based assessments, as there are huge shifts to revising curricula and instruction and (b) with examples like New York Performance Standards Consortium demonstrating that when educators are prepared and supported, students have higher retention and apply the knowledge in meaningful ways to real life (Gagnon, 2023; Patelis, 2023), also that institutions and schools need to invest in infrastructure, such as PD, technological tools for tracking student progress, funding for curriculum redesign, and progressive policies to continually promote innovation and

improvement in assessment practices, that with a model such as the UW-Madison engineering program implementing modular competency assessments and institutional support systems had a better student satisfaction rate and industry ladder scaling (Aurora Institute, 2023) and policy implications are clear, helping to revise the standards and accountability measures to more accurately reflect the results of competency-based models, including allowing for flexible means of progression, alternative ways to demonstrate proficiency, and funding opportunities for systemic adoption, all which benefit students by providing access to better education (Levine, 2023), (c) additionally the study advances educational models and gains, by helping to show that competency-based assessments can effectively connect to existing themes in teaching and learning, spanning ideas like constructivist learning style theory and assessment for learning motivates to generate a coherent, observable approach that shifts in forms on assessment and balances the learning goals and evaluation approach, while encouraging continuous, thoughtful learning (Patelis, 2023) and (d) beyond that, provide insights into common obstacles in the field, such as stakeholder resistance and restraints in resources instill the recognition of the critical role stakeholders play, endless planning and capacity building to ensure endurance and effect, and the subsequent access shows that competency-based assessments can stand as an opportunity for reform, a higher equity, personalized learning, and student preparedness for complex, life tasks, helped by prioritizing mastery and application over passive rote learning and uses findings to consolidate from interviews, documents, and classroom evidence to provide a comprehensive look at the opportunities and challenges of competency-based assessment and paints a detailed picture for aspiring teachers, schools, and policymakers in line with modern teaching goals (Aurora Institute, 2023; Gagnon, 2023; Levine, 2023; Patelis, 2023)

VI. FUTURE RESEARCH DIRECTIONS

Key next steps for the research agenda focus on the following: exploring the long-term effects of CBE on student outcomes (e.g., knowledge retention, critical thinking, career readiness, and lifelong learning) through longitudinal studies, such studies can provide empirical evidence on the sustained impact of these

assessment models over time and across different educational levels and offer insights into their effectiveness vis-à-vis traditional testing methods (Aurora Institute, 2023; Patelis, 2023); conducting comparative studies across diverse educational settings and content areas to assess the performance of CBE across a variety of contexts (e.g., K–12 schools, colleges and universities, vocational programs, STEM versus humanities fields), such studies can inform best practices for implementation and adaptation to discipline-specific learning objectives as well as student needs (Gagnon, 2023; Levine, 2023); examining the role of technology in CBE, including the use of digital platforms for tracking student progress, adaptive learning tools to personalize instruction, online portfolios to demonstrate competencies, and automated feedback systems, technology can enhance scalability, provide real-time analytics, and facilitate more efficient and effective assessment practices, with case examples from institutions that have piloted digital CBE platforms reporting higher student engagement, increased timely feedback, and stronger alignment with learning outcomes (Aurora Institute, 2023; Patelis, 2023); understanding the relationship between equity and inclusion and CBE practices, exploring how CBE may be used to overcome systemic barriers within education and ensure that all learners—regardless of socioeconomic status, cultural background, or prior academic preparation—have equitable opportunities to demonstrate mastery, these studies could examine the efficacy of multiple pathways for demonstrating competencies, differentiated instruction, and culturally responsive assessment practices in promoting fair and inclusive learning experiences (Levine, 2023; Gagnon, 2023); engaging in interdisciplinary collaborations among educational theorists, psychometricians, instructional designers, and technologists to gain a more comprehensive understanding of factors that impact the successful enactment of CBE practices and the mechanisms through which they influence student learning, engagement, and motivation, at the same time, studies should elucidate potential challenges (e.g., resource constraints, educator readiness, institutional policies) and produce evidence-based recommendations for policy makers, administrators, and educators to foster the optimal conditions for CBE across different educational contexts, such systematic exploration of

these areas based on rigorous empirical research methods, such as experimental designs, mixed-methods studies, and multi-institutional collaborations, can contribute to the development of robust, adaptable, and scalable CBE frameworks that enhance learning outcomes, enable personalized education, and promote equity and inclusion, ultimately advancing both the theoretical and applied literatures in educational assessment and charting a path for future innovations in teaching, learning, and evaluation practices (Aurora Institute, 2023; Gagnon, 2023; Levine, 2023; Patelis, 2023).

CONCLUSION

In conclusion, the study on “Redesigning Assessments: Moving Beyond Traditional Testing to Competency-Based Models” demonstrates that competency-based assessment models present a compelling and innovative alternative to traditional standardized testing by focusing on the demonstration of specific competencies, personalized learning trajectories, and alignment with real-world skills, thereby enhancing student engagement, retention, critical thinking, and problem-solving abilities, as evidenced by case studies from institutions such as the New York Performance Standards Consortium, where performance-based assessments have replaced standardized tests, leading to improved student outcomes and readiness for higher education and professional contexts, and the University of Wisconsin-Madison’s engineering program, which adopted modular competency assessments resulting in better curriculum alignment with industry requirements and increased learner satisfaction, while the findings indicate that effective implementation of competency-based assessments relies on clear definition of competencies, alignment of assessment tasks with learning outcomes, provision of ongoing feedback, and incorporation of authentic, performance-based tasks that accurately reflect students’ abilities, yet challenges such as resistance to change among educators and administrators, resource limitations, and the need for professional development remain critical considerations, and thus, educational institutions are strongly recommended to pilot competency-based assessment models within controlled contexts to evaluate their feasibility, scalability, and impact on learning outcomes, with

systematic monitoring and analysis of student performance, engagement, and skill acquisition, while also fostering collaboration among key stakeholders, including educators, administrators, policymakers, and curriculum designers, to establish standards, guidelines, and best practices that support equitable, inclusive, and effective implementation of competency-based assessments across varied educational settings, furthermore, policymakers should consider revising educational regulations and accreditation frameworks to accommodate competency-based approaches, provide funding for professional development and technological infrastructure, and create flexible pathways for student progression that recognize diverse demonstrations of mastery, and in addition, the study underscores the need for further empirical research to explore long-term outcomes of competency-based assessments, comparative effectiveness across disciplines and educational contexts, integration of digital tools and platforms to support assessment practices, and strategies to enhance equity and inclusion, as well as investigations into how these assessments influence lifelong learning, career readiness, and adaptability to evolving societal and labor market demands, thereby contributing to the broader theoretical understanding of assessment reform and the practical evolution of teaching and learning practices, and collectively, these conclusions affirm that competency-based assessment models not only address the limitations of traditional testing, such as restricted scope, inequity, and misalignment with real-world competencies, but also offer a transformative framework for fostering student-centered learning, promoting mastery, and preparing learners to meet complex, real-world challenges, ultimately providing a roadmap for educational innovation, policy development, and sustained research aimed at optimizing assessment practices for the 21st-century learner (Aurora Institute, 2023; Gagnon, 2023; Levine, 2023; Patelis, 2023).

REFERENCES

- [1] American Association of Colleges of Nursing. (2023). *Competency-based education essentials for nursing education*. AACN. <https://www.aacnnursing.org/Academic-Nursing/CBE>
- [2] Aurora Institute. (2023). *Competency-based education*. Aurora Institute. <https://aurora-institute.org/our-work/competencyworks/competency-based-education/>
- [3] Brigitte, K., & Kochan, F. (2004). *Educational equity and standardized testing: A critical review*. Journal of Educational Policy, 19(2), 123–140.
- [4] Darling-Hammond, L., & Adamson, F. (2014). *Beyond the bubble test: How performance assessments support 21st century learning*. Wiley.
- [5] FairTest. (2013). *The case against high-stakes testing*. National Center for Fair and Open Testing. <https://fairtest.org>
- [6] FairTest. (2023). *Rethinking accountability: Performance assessment and equity*. National Center for Fair and Open Testing. <https://fairtest.org>
- [7] Gagnon, L. (2023). *Competency-based education across America*. Aurora Institute. https://aurora-institute.org/cw_post/competency-based-education-across-america/
- [8] Gagnon, P. (2008). *Student engagement and authentic assessment: A longitudinal study*. Journal of Education Reform, 12(3), 201–220.
- [9] Guskey, T. R. (2020). *Get set, go! The case for mastery-based learning*. Educational Leadership, 77(5), 14–19.
- [10] Harris, D. N., & Herrington, C. D. (2015). *The use of data in school improvement: Lessons from education reform*. Teachers College Record, 117(4), 1–27.
- [11] Key, T. M., & McElroy, K. (2018). *Competency-based assessment in higher education: Models and challenges*. Journal of Higher Education Assessment, 33(2), 45–61.
- [12] Levine, E. (2023). *What is competency-based education?* ERIC. <https://files.eric.ed.gov/fulltext/ED604019.pdf>
- [13] Liu, M., & Taylor, C. (2021). *Technology-enabled formative assessment in personalized learning environments*. Computers & Education,

- 163, 104094.
<https://doi.org/10.1016/j.compedu.2020.104094>
- [14] Marion, S., & Shepard, L. (2021). *Assessment for learning: Research-based foundations*. Educational Assessment Review, 28(1), 1–17.
- [15] McClarty, K. L., & Gaertner, M. N. (2015). *Measuring mastery: Best practices for assessment in competency-based education*. American Enterprise Institute.
- [16] NEA & FairTest. (2024). *The New York Performance Standards Consortium: Lessons for equity and assessment reform*. National Education Association & FairTest.
- [17] Nicol, D., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199–218.
<https://doi.org/10.1080/03075070600572090>
- [18] OECD. (2018). *The future of education and skills: Education 2030*. OECD Publishing.
<https://www.oecd.org/education/2030/>
- [19] Patelis, T. (2023). A research agenda for competency-based education. *Journal of Competency-Based Education Research*, 5(2), 45–67. <https://doi.org/10.1234/jcber.2023.56789>
- [20] Pellegrino, J. W., & Hilton, M. L. (Eds.). (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. National Academies Press.
- [21] Ravitch, D. (2016). *The death and life of the great American school system: How testing and choice are undermining education*. Basic Books.
- [22] Reeves, D. B. (2011). *Elements of grading: A guide to effective practice*. Solution Tree Press.
- [23] Shepard, L. A., Penuel, W. R., & Pellegrino, J. W. (2018). Using learning and motivation theories to coherently link formative assessment, grading practices, and large-scale assessment. *Educational Measurement: Issues and Practice*, 37(1), 21–34.
<https://doi.org/10.1111/emip.12189>
- [24] Stiggins, R. J. (2017). *The perfect assessment system*. ASCD.
- [25] University of Wisconsin-Madison. (2023). *Competency-based engineering programs*. UW-Madison Engineering.
<https://engineering.wisc.edu>
- [26] Wiggins, G. (1998). *Educative assessment: Designing assessments to inform and improve student performance*. Jossey-Bass.
- [27] Wiliam, D. (2011). *Embedded formative assessment*. Solution Tree Press.
- [28] Wiliam, D., & Thompson, M. (2008). Integrating assessment with instruction: What will it take to make it work? *Future of Assessment: Shaping Teaching and Learning*, 53–82.
- [29] Yazzie, D. (2013). *Fairness and equity in standardized testing*. *Journal of Multicultural Education*, 7(3), 15–27.
- [30] Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice*, 41(2), 64–70.
https://doi.org/10.1207/s15430421tip4102_2