Implementing Scenario-Based Learning and Universal Design for Learning in Online Courses with Articulate Rise 360

Morgan, A.

Abstract: This paper explores an innovative approach to addressing engagement and inclusivity challenges in asynchronous online courses through the integration of Universal Design for Learning (UDL) and Scenario-Based Learning (SBL) principles using Articulate Rise 360. Implemented in an asynchronous undergraduate digital learning theories course, this approach centers on creating authentic learning experiences that simulate real-world professional scenarios, with students assuming roles as instructional design associates. By combining UDL's framework for optimizing teaching and learning with SBL's focus on practical application, the design methodology creates interactive, culturally relevant learning experiences that cater to diverse learner needs. Survey results indicated improved student engagement, confidence in applying theoretical knowledge, and accessibility through multimodal learning. Despite minor challenges, such as group activity dynamics, this integration represents a promising strategy for enhancing asynchronous online education, effectively bridging the gap between theoretical understanding and practical application while promoting inclusive and equitable learning environments.

Introduction

Asynchronous online learning presents unique challenges, including barriers to equitable access, engagement, and sustained motivation (Dixson, 2010; Farrell & Brunton, 2020). These issues are compounded by social isolation and the need to balance multiple responsibilities, often leading to achievement gaps (Goode et al., 2022). Universal Design for Learning (UDL) and Scenario-Based Learning (SBL) offer promising solutions. UDL emphasizes designing learning environments for diverse needs, while SBL promotes active, authentic tasks. Articulate Rise 360, with its versatile features, supports these frameworks. This paper discusses how UDL and SBL, integrated through Rise 360, can enhance access, engagement, and outcomes in online courses.

UDL and SBL

UDL is a research-based framework that aims to enhance accessibility and inclusivity in educational environments. Grounded in three core principles—Multiple Means of Engagement, Representation, and Action and Expression—UDL promotes learner choice and flexibility (CAST, 2024). Multiple Means of Engagement highlights the importance of motivation by providing

meaningful pathways for active involvement (Taylor & Yuknis, 2023). Multiple Means of Representation ensures that materials are accessible and foster deeper understanding for diverse learners (Rao & Meo, 2016). Multiple Means of Action and Expression offers varied ways for learners to demonstrate understanding, ensuring equitable opportunities (Rao et al., 2014). By applying these guidelines, educators can foster inclusive online environments that address the range of learner needs.

SBL immerses learners in authentic, real-world challenges through task deliverables, trigger events, scenario data, guidance, and reflection (Clark & Mayer, 2012). Research shows SBL fosters higher-order thinking, metacognition, and engagement (Deniş Çeliker, 2020; Mamakli et al., 2023). By providing immediate feedback and aligning with UDL's emphasis on flexibility, SBL helps learners connect theoretical knowledge to practice. Its interactive, flexible design promotes active learning, motivation, and meaningful application of course concepts and broader skills.

Articulate Rise 360 is a versatile e-learning authoring platform that integrates UDL and SBL principles through interactive, responsive design. Educators can develop real-world scenarios and accessible materials, making it effective for promoting engagement and inclusivity. Key features include interactive blocks supporting scenario-based tasks, responsive design for multiple devices, and customization for various content formats aligned with UDL guidelines (Hodge, 2021). By leveraging these tools, educators can address diverse learner needs, resulting in courses that prioritize both accessibility and deep student engagement.

Course Implementation

An example of UDL and SBL integration is illustrated in an asynchronous undergraduate digital learning theories course emphasizing collaboration, progress monitoring, and authentic tasks for higher engagement and concept application. Slack fosters a community of practice where learners share insights, address questions, and collaborate informally. Peer feedback on discussion boards supports iterative improvement, while introductory videos and recorded sessions help activate learners' prior knowledge. Students assume the role of an Instructional Design Associate, developing onboarding content for a fictional company, SparkyWave Solutions, in scenarios built with Articulate Rise. Each scenario begins with a trigger event outlining real-world challenges, such as designing gamified content with positive reinforcement. These weekly tasks require applying behaviorist principles and providing immediate feedback, enabling learners to bridge theory and practice effectively. This design illustrates how scenario-based activities, coupled with multiple forms of representation and interaction, can foster inclusivity, motivation, and deeper learning outcomes in online contexts.

While Articulate Rise 360 facilitates engaging, interactive content creation, it has notable constraints. The speech bubbles in scenario blocks have a limited character count, restricting scenario depth (Articulate, 2024). Furthermore, the platform accommodates multiple characters per scene but disallows switching characters within a single scene, reducing interactivity. The lack of native alt text in scenario blocks also requires supplementary instructions and descriptive text for accessibility. To mitigate these issues, the course design carefully limited text to fit speech bubbles while providing deeper discussions in Slack. Placeholder characters were chosen to maintain narrative coherence, and background image descriptions ensured visually impaired learners could access essential details. Collectively, these strategies mitigated Rise's limitations and supported a more inclusive learning experience.

Student Feedback and Outcomes

The survey, conducted among 13 enrolled students, received four complete responses, yielding a 100% completion rate among respondents. The results provide insights into the impact of integrating UDL and SBL on learner confidence, engagement, and understanding.

Confidence in Applying Learning Theories

All respondents strongly agreed that real-life scenarios in course assignments increased their confidence in applying learning theories to real-world contexts. A respondent remarked, "Actually, using the theories helped me to identify them and use them. I also started recognizing them in other teaching opportunities."

Practical Application of Learning Theories

The use of SBL was particularly effective in demonstrating the practical applications of learning theories. Half of the respondents strongly agreed that scenario-based activities facilitated their understanding, while another 25% agreed. One student noted, "The activities always supported my learning in understanding more about learning theories and how to apply them."

Engagement Through Diverse Methods

The course incorporated multiple formats, including videos, readings, and interactive discussions, aligning with UDL principles. 75% of respondents strongly agreed that this multimodal approach enhanced the accessibility and relatability of course content. A student commented, "The videos and text-based information supported prior learning and provided multiple means of engagement."

Enhanced Learning Experience

Three-quarters of the respondents strongly agreed that the combination of realistic scenarios and diverse instructional methods helped them synthesize and apply learning theories more effectively than traditional approaches. Students highlighted the immersive nature of scenario-based tasks, with one stating, "Immersing students to assume the role of a junior professional and tackle assignments through scenario-based learning felt more engaging."

Accessibility and Inclusiveness

Respondents praised the clarity of instructions and inclusiveness of the course design. One learner appreciated how live sessions provided opportunities to explore and understand expectations, stating, "Live sessions ensured we understood the task before us." However, one respondent identified challenges with small group work due to unequal contributions, suggesting potential improvements in group activity design.

Summary of Findings

In summary, integrating UDL and SBL with Articulate Rise 360 enhanced inclusivity and engagement through authentic, scenario-driven tasks, varied content formats (e.g., closed-captioned videos, transcripts, interactive modules), and continuous collaboration in Slack. These strategies mitigated the isolation common in asynchronous environments, fostering real-world problem-solving and flexible pacing. Respondents reported increased confidence applying theories, improved accessibility through multimodal approaches, and a strengthened sense of community via structured peer interactions. Although one respondent noted group work challenges, clearer role assignments and peer evaluations emerged as potential improvements. Overall, these designs promoted equitable access, motivation, and robust practical skill development in asynchronous environments.

Discussion

Our findings closely mirror existing research on authentic application, SBL, multimodal instruction, and inclusive design. Khalil and Elkhider (2016) highlight how real-world contexts bridge theory and practice, evident in respondents' increased confidence and competence through authentic scenarios. Battista's (2017) emphasis on reflective practice aligns with our observation that combining scenario-based tasks with reflection enhances both comprehension and practical application of theoretical concepts. Multimodal learning, supported by Marucci et al. (2021), proved beneficial for accessibility and cognitive processing, while Mamakli et al. (2023) demonstrate how professional role adoption can boost engagement and reduce anxiety, outcomes that parallel our students' experiences. Winnie et al. (2020) underscore the importance of inclusive environments and balanced group dynamics, echoing our findings that explicit instructions and equitable role assignments minimize social loafing.

Nonetheless, some respondents reported uneven contributions, indicating a need for more structured peer evaluations, rotating leadership roles, and clear guidance for asynchronous communication. Such measures would enhance accountability and allow instructors to address imbalances in real time. Collectively, these findings underscore the importance of thoughtful instructional design, supporting more inclusive, engaging, and effective online learning experiences.

Conclusion

The integration of UDL and SBL with Articulate Rise 360 demonstrates potential for creating inclusive, engaging, and impactful asynchronous online courses. Survey results from a digital learning theories course indicated increased student confidence, diverse modes of engagement, and enhanced real-world application of theoretical knowledge. Although challenges around group dynamics and platform constraints underscore the need for clear instructional guidance and accessible design, structured peer evaluations and thoughtful course adaptations proved promising. More broadly, UDL principles ensure multiple pathways to learning, while SBL enriches courses by grounding concepts in authentic tasks. As online education continues to expand, merging these frameworks, supported by accessible e-learning authoring tools, provides a path to equitable and practice-oriented learning. Future research should explore additional solutions to collaborative challenges and investigate how emerging technologies could further strengthen UDL and SBL in diverse contexts.

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