International Technology and Education Journal
Vol. 9 No. 2; December 2025
ISSN: 2602-2885
URL: http://itejournal.com/

Wong, K. K. (2025) Discovery Quest 2.0 Reinvented: A Canadian Approach to Enhancing Mobile-Driven Experiential Education with Presentria GO. International technology and education journal, 9(2), 35-49. https://doi.org/10.71410/ESApub.ITEJ.2025.9-2.4

Discovery Quest 2.0 Reinvented: A Canadian Approach to Enhancing Mobile-Driven Experiential Education with Presentria GO

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SUMMARY

Growing concerns about digital fatigue, declining engagement, and the limitations of traditional online and classroom-based instruction have renewed interest in experiential and location-based learning. This study examines the feasibility and perceived value of mobile-driven, location-based experiential learning using Presentria GO, a Canadian educational technology platform. An exploratory mixed-methods design was employed, combining survey responses from 74 educators, interviews with 11 award-winning professors, a focus group with five college instructors, and interviews with three students who had used the platform in applied coursework. Findings indicate widespread perceptions of online-learning fatigue, strong interest in instructional approaches that extend beyond classroom and home-based environments, and cautious openness to integrating mobile, location-based tools for academic purposes. Educators identified several suitable disciplinary contexts, along with practical challenges related to safety, accessibility, and implementation. Student feedback suggested that mobile, location-based tasks can support engagement and real-world application of course concepts. The study introduces the concept of Mobile-Driven Location-Based Experiential Learning and outlines implications for instructional design, accessibility, and future integration of emerging technologies such as artificial intelligence and augmented reality.

Keywords: Experiential Learning, gamification, location-based learning, mobile learning, Presentria GO

INTRODUCTION

Experiential learning activities have long been recognized for their ability to engage students beyond the classroom. Traditional examples, such as discovery quest or city explorations, encourage participants to navigate physical spaces, uncover hidden items, and complete tasks. These activities are not only enjoyable but also promote deeper understanding of subject matter and local environments by fostering active, field-based learning.

However, many students today find conventional classroom instruction increasingly challenging. Passive, lecture-based formats often feel monotonous, while some students prefer self-directed approaches using online resources such as YouTube videos, educational apps, or search tools. This shift in learning habits has contributed to declining class attendance and reduced engagement (Mokhtari et al., 2021).

Recent transformations in education—driven by the integration of artificial intelligence (AI), the rise of online and hybrid learning modalities, and the growing emphasis on active and experiential approaches—have prompted educators to rethink traditional teaching practices (Kniffin & Greenleaf, 2023; Microsoft Education, 2025; Mulenga & Shilongo, 2025). Concerns about student well-being, digital fatigue, and waning motivation in both physical and virtual classrooms underscore the need for strategies that promote meaningful participation and improved learning outcomes (Legault, 2023; Rapin, 2021). Extended screen time and rigid online delivery formats have been linked to cognitive fatigue and engagement challenges, highlighting the limitations of conventional e-learning models and accelerating the shift toward flexible, immersive, and learner-centered pedagogies (Johnson, 2024; Zou et al., 2025).

One promising approach combines the interactive nature of traditional discovery quest with mobile and location-based technologies to create innovative educational tools. Presentria GO exemplifies this concept. Developed by Canadian professors in collaboration with international educators and developers, Presentria GO extends learning beyond classroom walls. In contrast to conventional polling systems designed for Wi-Fi-dependent classroom settings, Presentria GO enables the development of field-based activities that prompt students to respond to geo-specific questions. The platform incorporates gamification elements—such as points and digital badges—to enhance motivation and engagement (Education Technology Insights, 2024).

The Presentria GO Platform: Design, Features, and Context of Use

Presentria GO is a Canadian platform that enables mobile, location-based experiential learning activities, offering an alternative to traditional classroom-based instruction (Education Technology Insights, 2024). By using real-time geographic positioning, the platform delivers content linked to specific locations, creating dynamic learning

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opportunities consistent with the guidelines proposed by Hwang et al., (2008). In line with research by Shang et al. (2011) highlighting the value of rich media and interactive features for enhancing learner experiences, the platform supports the integration of diverse educational materials, including images, PDFs, videos, and web links. It also provides interactive assessment options such as multiple-choice, fill-in-the-blank, and Likert-scale questions to structure students' learning in the field. Gamification elements—such as points, immediate feedback, and progress indicators—are incorporated to support learner motivation and engagement, as suggested in prior studies on game-based learning (Shute & Torres, 2012; Zichermann & Cunningham, 2011).

Instructors may also monitor student progress through an online dashboard, send prompts during activities, and export data for formative or summative evaluation (Rapti, 2013). These features allow the platform to be used in a variety of instructional contexts. Reported applications span multiple disciplines, including merchandising audits in marketing, spatial analysis in geography and urban planning, and vocabulary or observational practice in language courses. In outdoor or community-based activities, students can document findings through photos or short reflections, such as identifying accessibility features in public spaces. This versatility enables Presentria GO to support a wide range of curriculum-aligned, field-based learning tasks.

Implementing Presentria GO

Implementation begins with instructors mapping checkpoints on a digital map, each linked to learning tasks (Figure 1). At these locations, students complete activities such as watching videos, answering questions, or capturing photos (Figure 2). GPS-enabled geofencing unlocks content on-site, reinforcing location-based learning. Educators can vary question types, adjust difficulty, or layer tasks for added challenge.

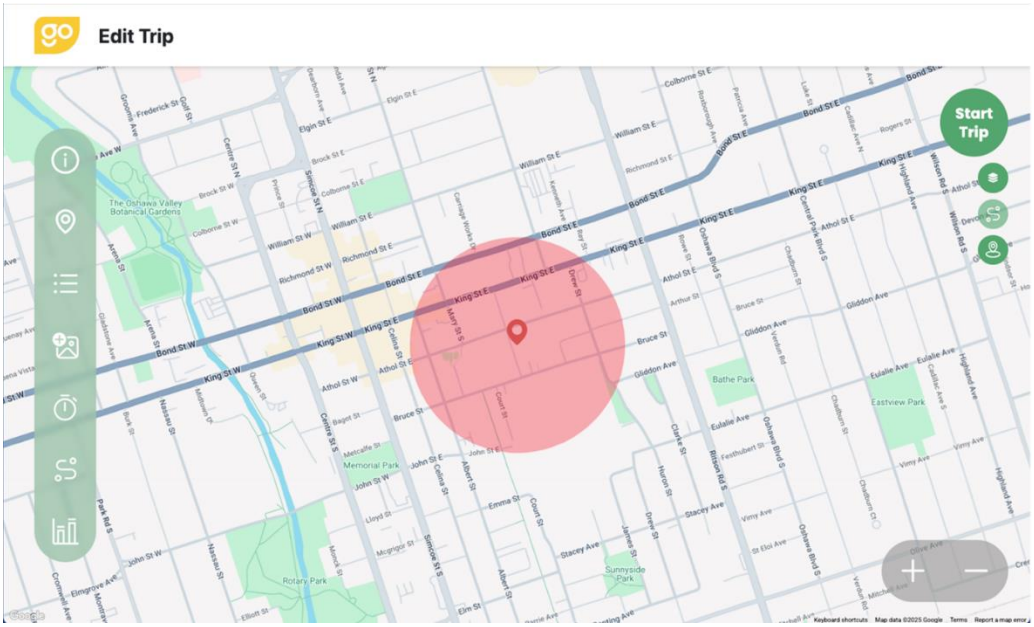
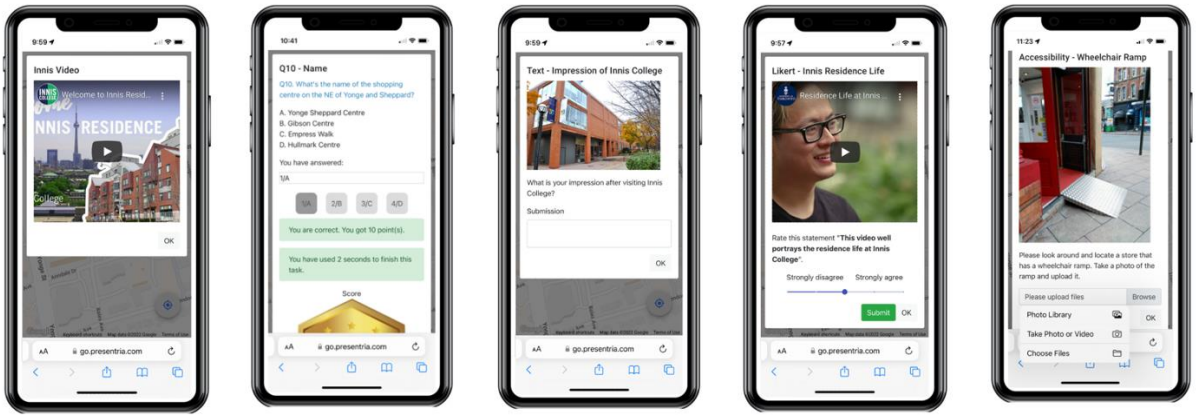


Figure 1. Instructors can place checkpoints on a digital map using the Presentria GO platform. (Screenshot)



(a) Watch YouTube or Vimeo videos

(b) Earn points by answering multiple-choice questions correctly.

(c) Complete short-answer question.

(d) Express opinion using likert-scale.

(e) Take and upload photo for homework submission.

Figure 2. Examples of various tasks students can complete at designated checkpoint locations. (Screenshot)

Gamification keeps students motivated by using points, levels, and badges, encouraging a sense of achievement and friendly competition. Students can earn certificates or digital badges when they complete tasks. The platform tracks participation and performance in real time, helping teachers make decisions based on data (Figure 3). It also has a web-based option for students learning remotely or with mobility challenges, making it accessible and flexible for everyone.

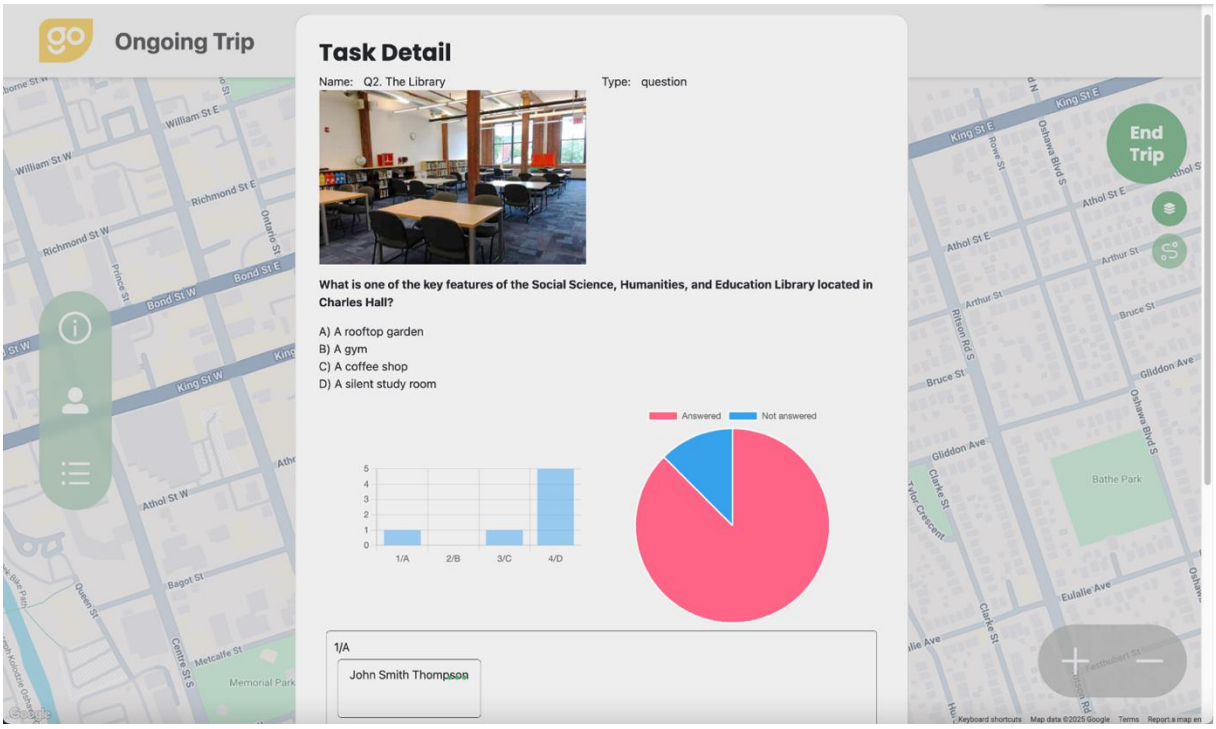


Figure 3. Instructor Dashboard Showing Participation Rates, Group Metrics, and Question-Level Analytics. (Screenshot)

LITERATURE REVIEW

Current Challenges in Education

Educators today face a complex mix of pedagogical and technological challenges, including declining class attendance, reduced engagement, digital distraction, difficulties in group work, academic integrity concerns, mental health issues, and emerging phenomena such as "AI guilt." (Chan, 2024; Daigle, 2020; Qu & Wang, 2025; Tam and El-Azar, 2020)

Recent data illustrate the scope of these issues. Nearly half of teachers (46%) report lower student engagement compared to pre-2019 levels, despite students expressing curiosity and motivation to learn (Fittes, 2024). Similarly, 26% of public-school leaders identify student inattention as having a severe negative impact on learning (National Center for Education Statistics, 2024). Digital distraction is a major contributor: in a Common Sense survey, 49% of youth aged 14–22 admitted struggling to control social media use and spending more time on it than intended (Common Sense, 2024). Such multitasking erodes academic motivation and accountability, making meaningful participation harder to achieve.

Group work, a cornerstone of collaborative learning, remains difficult to implement effectively due to uneven workload distribution, weak communication, and lack of peer accountability (Franz, 2012; Winquist & Franz, 2008). Academic integrity is also under pressure. Generative AI tools like ChatGPT and Copilot are increasingly misused, with studies linking GenAI use to lower exam performance—on average a 6.7-point decrease—and reduced self-efficacy (Wecks et al., 2024). Even authentic assessments cannot fully prevent AI-enabled misconduct, as instructors risk false positives or negatives when detecting AI interference (Newton, 2024).

Mental health challenges, including anxiety, depression, and burnout, are rising among students in Canada and the USA. A CDC report notes improvements in youth mental health but warns of increased school-based violence and absenteeism, which heighten anxiety (CDC, 2024). In Canada, post-COVID academic expectations have intensified stress (Rashid & Di Genova, 2022). The expansion of large-scale AI platforms has been linked to academic burnout (Azeem & Abbas, 2025), while reliance on digital tools exacerbates social isolation, a known risk factor for poor mental health (Delello et al., 2025). Additionally, secondary students report "AI guilt"—a moral discomfort about using AI for academic work—stemming from concerns about laziness, inauthenticity, and diminished self-efficacy (Chan, 2024).

Cultural factors amplify these pressures. Hofstede's Motivation toward Achievement and Success (MAS) index scores—USA (62) and Canada (52)—reflect achievement-driven cultures where reliance on AI may be perceived as personal failure (The Culture Factor Group, 2025). To address these challenges, schools must adopt mental health frameworks and AI literacy programs (Weist et al., 2023). Innovative strategies and adaptive technologies like Presentria GO may help sustain meaningful teaching and learning while mitigating these concerns.

From Lecture to Active Learning

For generations, the traditional lecture model has been the foundation of education, where instructors disseminate information and students passively absorb it. However, research shows this approach no longer aligns with today's students. A meta-analysis of 398 K–12 studies found active learning significantly improved academic achievement and learning retention compared to lectures (Tutal & Yazar, 2023). Similarly, a systematic review defined active learning as student-centered strategies promoting higher-order thinking, participation, and engagement (Doolittle et al., 2023).

Active learning strategies—case studies, debates, role-playing, and collaborative projects—place students at the center of the learning experience (Doolittle et al., 2023). Dzaiy & Abdulla (2024) note that active learning enhances academic achievement, conceptual understanding, critical thinking, and motivation in higher education.

Among these strategies, experiential learning stands out for its emphasis on real-world application. A study in children's settings found experiential learning positively impacted academic achievement (Ranken et al., 2024). Further, research highlights that experiential learning boosts classroom engagement and motivation via constructivist, learner-centered pedagogy (Kong, 2021). Finally, experiential learning in introductory science courses increased performance and engagement (Kebande, 2024; Sundstrom et al., 2025). This shift from passive to active participation effectively transforms students into meaningful creators of knowledge, enhancing both retention and academic performance.

Mobile Learning Outside the Classroom

Learning Outside the Classroom (LOtC) has long been recognized for its ability to enhance motivation, behavior, and academic outcomes by situating learning in authentic environments (Council for Learning Outside the Classroom, 2022; Ofsted, 2008). Recent studies continue to demonstrate these benefits. For example, a Danish study reported that students participating in weekly outdoor instruction showed increased physical activity and reduced sedentary time without compromising academic performance (Kaid, 2025). The MOVEOUT project similarly found sustained improvements in school motivation, well-being, and achievement (Elsborg et al., 2024). Research on extended residential outdoor programs also indicates lasting gains in engagement, 21st-century skills, and motivation (Mann et al., 2023), while a systematic review of 147 outdoor learning studies highlights the socio-emotional and cognitive benefits of nature-based instruction (Mann et al., 2022).

Mobile technology expands these possibilities by enabling students to engage with context-specific tasks while navigating real-world spaces. Smartphones equipped with GPS, sensors, and augmented reality (AR) capabilities support situated learning experiences that blend digital content with physical environments (Midles, 2024; Nelson & Gabbard, 2024). Evidence from mobile AR serious games shows that constructively designed, location-aware activities can significantly improve engagement and learning outcomes (Nelson & Gabbard, 2024), while vocabulary applications such as ARLang demonstrate student preference for mobile AR over traditional study tools (Caetano et al., 2024).

Mobile devices also facilitate task-based and self-directed learning as students access instructions, collect data, or complete assignments in situ. GPS-enabled mobile learning has been linked to higher self-efficacy, self-regulation, and academic achievement (Breitwieser, 2024), and smartphone GPS accuracy has proven sufficient for field-based ecological education (Dike, 2024). Activities such as geocaching further illustrate the potential of location-based learning; a 10-day intervention improved adolescents' well-being and spatial awareness (Puhakka et al., 2025), and university–municipal collaborations have successfully used geocaching to teach local history and ecology (UW Bothell, 2024).

Mobile technology also promotes inclusivity through widespread device availability, which supports personalized learning pathways and collaboration (van Kraalingen & Beames, 2024). Effective designs integrate contextual awareness, learner interests, and timely feedback, leveraging AR and GPS functionalities to create adaptive, engaging learning environments (Graser & Böhm, 2024).

Together, research on LOtC and mobile-enabled contextual learning underscores the potential of mobile learning outside the classroom to bridge theory and practice, enrich learner engagement, and support flexible, accessible educational experiences.

Gamification in Education

Gamification—the deliberate integration of game elements such as points, badges, leaderboards, feedback, and narrative into non-game contexts—has attracted significant attention in education over the past decade (Deterding

et al., 2011; Werbach & Hunter, 2015). Recent meta-analyses confirm its effectiveness, reporting substantial positive impacts on learning outcomes and student engagement (Li et al., 2023; Rodrigues et al., 2022). A comprehensive review of 398 studies found strong learner preference for gamified approaches, particularly when mechanics, dynamics, and aesthetics were thoughtfully designed (Limantara et al., 2023).

Gamification supports key motivational and cognitive outcomes. A systematic review in Frontiers in Education (2024) linked gamified interventions to improvements in motivation, self-regulation, participation, and engagement (Ruiz et al., 2024). Similarly, a 2024 meta-analysis noted that points and badges significantly enhanced emotional and participatory engagement, with badges alone proving especially effective for sustaining participation (Jack et al., 2024). Research on gamified augmented reality (AR) environments further demonstrated increased learner interest and academic performance when AR features were combined with game mechanics (Lampropoulos et al., 2022). Empirical work in STEM education echoes these findings; for example, a 2024 study of gamified statistics exercises reported that well-designed game elements improved motivation and deepened conceptual understanding (Jack et al., 2024).

Despite these benefits, challenges remain. The novelty effect—a temporary motivational boost from new technology—can diminish over time, reducing engagement unless gamification is carefully designed (Rodrigues et al., 2022). Ethical concerns have also emerged regarding potential manipulation through competitive elements such as leaderboards and rewards (Klock et al., 2023). Overreliance on extrinsic motivators like points may undermine intrinsic motivation for some students (Hanus & Fox, 2015; Mekler et al., 2017). A study on a popular language-learning app revealed "gamification misuse," where users became overly focused on rewards, detracting from authentic learning (Mogavi et al., 2022).

While drawbacks exist, consensus suggests that gamification can significantly enhance motivation, engagement, and performance—particularly when grounded in theory (e.g., self-determination theory) and supported by thoughtful design that balances feedback, challenge, narrative, and social interaction (Lampropoulos et al., 2022; Li et al., 2023; Sailer et al., 2017). For sustained impact, educators must consider long-term engagement and ethical dimensions, ensuring game mechanics reinforce rather than replace meaningful learning.

THEORETICAL FRAMEWORK

This study is grounded in established learning theories that explain how mobile-driven, location-based activities can support engagement, motivation, and knowledge construction. Four complementary frameworks inform the design and interpretation of the research: Experiential Learning Theory, Situated and Context-Aware Learning, Self-Determination Theory as it relates to gamification, and Formative Assessment. Together, these perspectives provide a foundation for understanding the pedagogical value and limitations of location-based mobile learning environments.

Experiential Learning Theory

Kolb's Experiential Learning Theory (2014) positions learning as a cyclical process involving concrete experience, reflective observation, abstract conceptualization, and active experimentation. Mobile-driven field activities align closely with this cycle by situating tasks in real environments where students can observe, analyze, and apply course concepts. When students respond to prompts or complete tasks at specific locations, they engage in iterative interactions between experience and reflection. In this study, Experiential Learning Theory provides a lens for examining how educators and students perceive the value of real-world, field-based learning supported by mobile technology.

Situated and Context-Aware Learning

Situated Learning (Lave & Wenger, 1991) argues that knowledge is most effectively constructed within authentic, real-world contexts rather than abstract or decontextualized settings. Related research in context-aware and ubiquitous learning highlights how mobile technologies, sensor data, and location-based triggers can situate instructional content within the learner's physical environment. GPS-enabled tasks—such as those used in Presentria GO—create contextually relevant learning experiences that require students to interact with local surroundings. This framework helps interpret educator perceptions of authenticity, safety, and feasibility when learning activities extend beyond traditional classrooms.

Self-Determination Theory and Gamification

Self-Determination Theory (Ryan & Deci, 2000) explains how three psychological needs—autonomy, competence, and relatedness—shape intrinsic motivation. Gamification elements commonly used in educational tools (e.g., progress indicators, badges, point systems, or feedback) can support these needs when thoughtfully designed. Location-based mobile learning may enhance autonomy by allowing students to move at their own pace, support competence through immediate feedback, and foster relatedness when activities are completed collaboratively. This framework is used to interpret how educators and students perceive the motivational potential of mobile, gamified experiential tasks, as well as concerns about overreliance on extrinsic rewards.

Formative Assessment

Black and Wiliam's (1998) principles of formative assessment emphasize ongoing feedback, monitoring of progress, and opportunities to adjust learning strategies. Mobile learning environments can facilitate such processes by capturing real-time responses, enabling instructors to observe participation patterns, and providing feedback during the activity. In this study, formative assessment theory helps explain how mobile-based experiential tasks may support instructional decision-making and learner self-regulation, particularly when learning occurs outside the classroom.

Integrating the Frameworks

Together, these theories articulate the pedagogical conditions under which mobile-driven, location-based experiential learning may be effective. Experiential Learning Theory emphasizes active engagement; Situated Learning highlights contextual relevance; Self-Determination Theory explains motivational mechanisms; and Formative Assessment underscores feedback and instructional alignment. This combined framework supports the study's examination of educator readiness, student experiences, and practical considerations when implementing location-based learning through mobile technology.

This paper introduces the concept of "Mobile-Driven Location-Based Experiential Learning" within the Active Learning framework, leveraging mobile technology to create interactive, engaging, and enjoyable learning experiences that transcend the limitations of traditional field trips [see Figure 4].

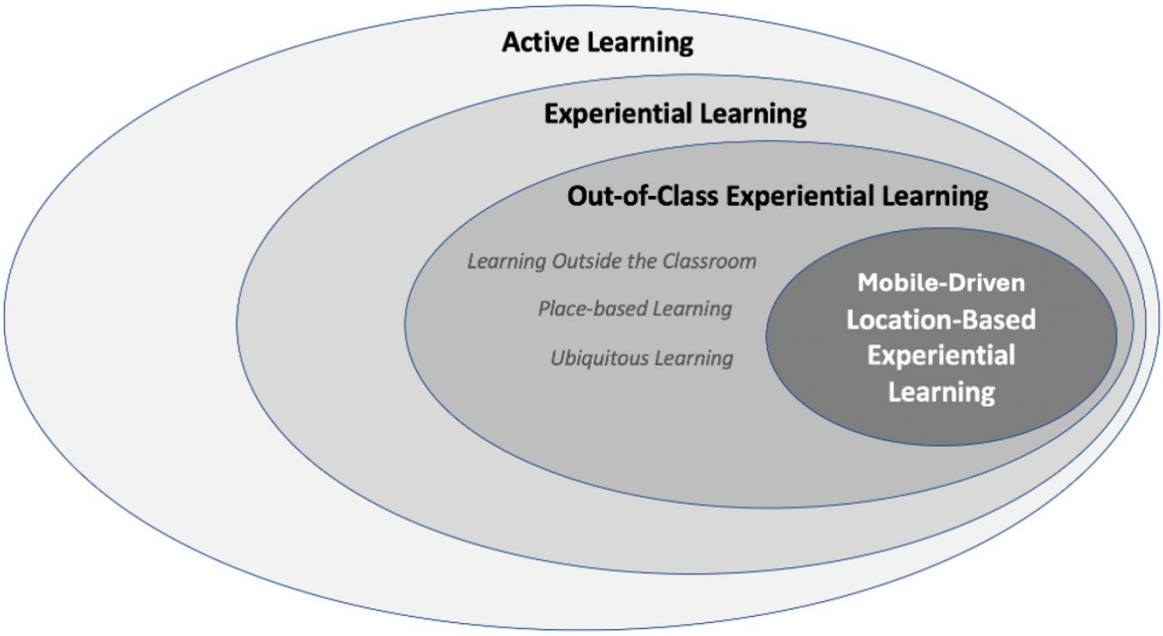


Figure 4. Positioning Mobile-Based Location Learning at the Heart of Active Learning Approaches

METHODOLOGY

This study employed an exploratory mixed-methods design to examine educators' and students' perceptions of mobile-driven, location-based experiential learning using the Presentria GO platform. A mixed-methods approach was selected to triangulate evidence from multiple data sources and to provide a comprehensive understanding of feasibility, perceived value, and implementation considerations. The study consisted of four components: an educator survey, expert interviews, a focus group with college instructors, and semi-structured interviews with students who had used the platform in course activities.

Research Objectives

The overarching research question examined the feasibility and demand for using Presentria GO as an educational technology tool to support location-based experiential learning. Specific research questions are:

RQ1: What challenges do educators perceive regarding current online/hybrid learning environments?

RQ2: What is the level of educator interest in mobile location-based experiential learning?

RQ3: What barriers do educators foresee in implementing such technologies?

RQ4: How do students perceive the usefulness and engagement value of Presentria GO?

Phase 1: Educator Survey

The first phase involved an online survey distributed to educators at multiple levels, with emphasis on higher education instructors. This group was targeted because college and university students typically carry smartphones, making mobile, location-based learning activities more practical. Convenience sampling was used due to time and resource constraints. In total, 74 educators participated: 47% were university professors, 26% college professors, 3% K–12 teachers, and the remainder school administrators.

The survey assessed perceptions of Zoom fatigue, interest in teaching modalities beyond classroom instruction and home-based webinars, and views on the safety of outdoor learning activities. Responses were captured using a Likert scale (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree). Participants also answered a Yes/No question on willingness to try an EdTech solution supporting experiential, location-based learning and, if yes, identified suitable course types and levels. Additionally, respondents reflected on the potential of a flipped classroom approach, where students design their own experiential learning trips. All surveys were completed anonymously via Microsoft 365 Forms.

Phase 2: Expert Interviews

The second phase consisted of interviews with 11 highly recognized educators, selected through purposive judgment sampling. All were recipients of the Ontario government's Minister of Colleges and Universities' Award of Excellence for outstanding teaching and did not participate in the survey. Interviews explored three core questions:

1. Do you think students are experiencing "Zoom fatigue" from excessive online webinars at home?
2. Beyond classroom teaching and at-home webinars, could location-based experiential learning serve as a viable third instructional option?
3. If an EdTech tool could support location-based experiential learning, would you consider using it? If yes, in which course(s) or academic level?

Phase 3: Focus Group

The third phase involved a focus group with five college professors, selected through purposive judgment sampling because they actively practiced experiential learning or expressed strong interest in it. These participants did not take part in earlier phases. The discussion addressed similar questions on Zoom fatigue, feasibility of location-based learning as a third modality, and willingness to implement field activities using an EdTech tool.

Phase 4: Student Interviews

The final phase gathered feedback from three college students with firsthand experience using Presentria GO. These students used the platform in regular coursework and during preparatory training for the Ontario Colleges Marketing Competition (OCMC). They were asked:

"What do you think about the Presentria GO system that you experienced at school, particularly during your OCMC training?"

Data Analysis

This exploratory study used a convergent mixed-methods design, analyzing quantitative (survey) and qualitative (interview and focus group) data separately before integrating findings during interpretation. Quantitative data were examined using descriptive statistical techniques. Qualitative data followed established procedures, including transcription, repeated read-throughs for familiarization, and systematic noting of key impressions. For the focus group (n = 5), formal coding was not applied; instead, detailed notes were taken, with attention to group dynamics and avoidance of dominance by any single participant. Member checking was used to validate interpretations and ensure accuracy. Through triangulation, findings from each method were compared to identify convergence and complementary insights.

Ethical Considerations

All procedures were reviewed and approved by the institution's Research Ethics Board. Participation across all components was voluntary, and informed consent was obtained prior to data collection. To protect confidentiality, identifying details were removed from transcripts, and data were stored on secure, password-protected servers.

FINDINGS

Zoom Fatigue

Survey and expert interview results revealed key trends regarding educators' experiences with online learning and their openness to alternative instructional methods. When asked about Zoom fatigue—a common consequence of prolonged synchronous online instruction—65% of the 74 surveyed educators identified it as a significant barrier to effective learning. Responses were distributed as follows: 9.5% disagreed, 26% were neutral, 46% agreed, and 19% strongly agreed, confirming the widespread impact of virtual learning fatigue. Expert interviews and focus

groups reinforced these findings. One respondent noted, "Zoom fatigue is real, and I think that it is a challenge for students. It is probably going to get worse as we move into the Winter." Another added, "I'm definitely finding that students are suffering from Zoom fatigue—aren't we all?"

New Ways to Teach Students

This decline in engagement has prompted educators to explore innovative strategies. In response to the statement, "Educators are looking for new ways to teach students safely in addition to classroom and online lectures at home," 86% of survey respondents expressed interest in safe, interactive learning experiences beyond conventional classroom or home-based instruction. Specifically, 54% agreed and 32% strongly agreed, while only 8.1% disagreed and 6.8% were neutral—underscoring strong demand for diversified pedagogical approaches. Expert interviews and focus groups echoed this trend, showing support for outdoor and location-based learning. One expert remarked, "Experiential learning is a great option—though it requires significantly more instructional effort. I have been working to embed it into my courses."

Implementing Location-based Experiential Learning

When asked about willingness to adopt an EdTech solution enabling experiential, location-based learning outside the classroom, 47% of the survey respondents said "Yes", while 53% said "No". Both survey and interviews explored suitable courses and academic levels for implementation. Participants suggested disciplines such as Archaeology, Architecture, Geography, History, Marketing, Real Estate Management, Retail Management, and Therapeutic Recreation. Given the need for smartphones and maturity in field-based activities, this approach was recommended for upper-level undergraduate courses, graduate certificate programs, and master's programs.

Flipped Classroom

Regarding the feasibility of flipped classroom models—where students research topics and design experiential trips—58% of respondents considered it viable, compared to 28% who said "No" and 14% who were uncertain. This reflects growing interest in blended formats that promote active participation beyond traditional lectures.

Other Concerns

The focus group of five college professors validated these findings but identified several challenges. Concerns included neighborhood safety (e.g., navigating busy intersections, encountering beggars or homeless individuals, and potential gang activity) and negative reactions from local businesses toward students lingering without purchases. Liability was another issue; for example, injuries during snowy conditions raised questions about coverage, particularly for international students. Additional concerns involved students getting lost, limited access to reliable devices, and inadequate outdoor Wi-Fi for those without mobile data plans. Participants also questioned what support systems would exist if students required assistance while exploring independently without faculty supervision. These considerations highlight the complexity of implementing this approach and provide a foundation for future research and practical strategies.

The Survey and Expert Interview findings are summarized in Table 1.

Survey					
Please rate these statements about learning:	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Students are suffering from having too many online webinars at home (a.k.a. ZOOM fatigue)	0 (0%)	7 (9.5%)	19 (26%)	34 (46%)	14 (19%)
b. Educators are looking for new ways to teach students safely in addition to classroom and online lectures at home.	0 (0%)	6 (8.1%)	5 (6.8%)	40 (54%)	24 (32%)
c. If an EdTech solution is available to allow students to perform experiential, location-based learning outside of the classroom, would you be interested in trying it out in one of your courses?	Yes: 35 (47%)	No: 39 (53%)			
d. If Yes, what kind of course/level will that be?	Course: Archaeology, Architecture, Biology, Geography, History, Marketing, Real Estate Management, Retail Management, and Therapeutic Recreation Level: Higher levels in Undergraduate programmes, Graduate certificate programmes, and Master programmes.				
e. Do you think the concept of "Flipped Classroom" can be applied to such location-based experiential learning? (i.e., Students conduct research on the topic and then design the city trip.)	Yes: 43 (58%)	No: 10 (14%)	Not Sure: 21 (28%)		
Expert Interview	Selected comments from survey participants				

Q1. Do you think students are experiencing "Zoom fatigue" from excessive online webinars at home?	"Zoom fatigue is real, and I think that it is a challenge for students. It is probably going to get worse as we move into the Winter." "I'm definitely finding that students are suffering from Zoom fatigue --- aren't we all?" "Yes. As our weeks went by in the Virtual TR pilot-project, we definitely saw our students demonstrating signs of fatigue."
Q2. Beyond classroom teaching and at-home webinars, do you believe location-based experiential learning could serve as a viable third instructional option?	"Experiential learning is a great option—though it requires significantly more instructional effort. I have been working to embed it into my courses." "I can really see how incorporating place and location into virtual pedagogy could be very valuable!" "I could see using something like this to get students outside around campus, or the immediate vicinity of the campus, but I would need to see a large and specific benefit to use it further."
Q3. If an EdTech tool could support location-based experiential learning, would you consider using it? If yes, in which course(s) or academic level?	"I think it offers an excellent alternative to in-class iClicker type technologies for the right type of class." "I would definitely be interested in trying out EdTech that allows for experiential learning outside of the classroom!"

Table 1: Summary of research findings from survey and expert interview.

Student's Feedback for Presentria GO

This study also examined students' feedback on the educational technology tool Presentria GO. Individual interviews were conducted with three college students enrolled in a marketing program at the same Ontario institution. These students had firsthand experience using Presentria GO both in regular coursework and during preparatory training for the Ontario Colleges Marketing Competition (OCMC).

Student feedback consistently emphasized the platform's positive impact on engagement, practical skill development, and overall learning experience. One student, who won the Retail Case at OCMC, shared:

"I think Presentria GO is a fun and interactive application that allows us to explore the retail space and answer critical questions accordingly. It was a fun and unique experience, and I was able to take lessons I'd learned in class and apply them to the real world."

Her teammate echoed this sentiment:

"The opportunity to explore different physical retail locations and answer questions in real time gave me an engaging learning experience that a classroom simply can't replicate. I loved using the application and would be pleased to use it again."

Similarly, a Retail Case winner from the previous year reflected:

"It was engaging—not boring—very interesting and insightful. Using Presentria can be a very helpful and exciting experience. You learn from real companies, and you actually get to see what's in store."

These testimonials underscore how Presentria GO fosters active learning, bridges theory and practice, and equips students with real-world insights through immersive, location-based educational activities.

DISCUSSION

Democratizing Learning outside of the Classroom

Findings from surveys, expert interviews, focus groups, and student feedback highlight the potential of location-based experiential learning to engage students beyond traditional classroom settings. Participants emphasized that, with appropriate educational technology tools such as Presentria GO, educators can deliver curriculum content and coaching through active, student-centered experiences. This pedagogical shift addresses evolving learner expectations and aligns with broader trends toward mobile-first technologies that support immersive and interactive learning.

Importantly, student feedback such as "fun and interactive application" and "engaging learning experience" suggests that these activities foster intrinsic motivation rather than relying on external incentives like grades or rewards. When students describe the experience as enjoyable and meaningful, it indicates that their engagement stems from curiosity, autonomy, and personal interest—key drivers of intrinsic motivation. This is significant because one concern raised by educators was the risk of students participating only for extrinsic rewards. The

feedback demonstrates that well-designed experiential tasks can transform learning into a self-directed process where students value the activity for its inherent educational and social benefits, not merely for points or grades.

However, these findings should be interpreted with caution. The student feedback came from a very small sample (n = 3), all of whom were high-achieving OCMC competitors. This convenience sample represents an initial, highly engaged user perspective and may not reflect the broader student population. As such, the positive comments are not generalizable and should be viewed as preliminary insights rather than definitive evidence of widespread appeal.

Interactions with professors revealed remaining questions and concerns. Many educators still rely primarily on classroom lectures, Zoom sessions, or HyFlex formats. This suggests a need for additional training and guidance on designing effective field-based activities, determining appropriate question types, and assigning suitable weight to experiential tasks. Such measures ensure that experiential learning meets instructional objectives rather than being implemented superficially. Safety and liability concern also remain significant, requiring clear protocols before widespread adoption.

Inclusivity Through Flipped Classroom Learning

A key advantage of this model, particularly in addressing the noted challenges of equity and access, is its potential for the flipped classroom approach. Not all students can participate in outdoor learning due to health conditions, geographic constraints, or accessibility challenges. To ensure universal participation, educators can leverage the flipped classroom model. In this approach, students act as instructors by designing their own experiential trips using the EdTech tool. This process involves researching topics, analyzing stakeholders, planning routes, and creating questions and answers for each checkpoint. Such activities foster research skills, creativity, and pedagogical thinking, enabling students to take ownership of learning as co-creators of educational content.

Study Limitations

While findings are promising, limitations must be acknowledged. The study's small sample size and focus on Ontario educators may restrict generalizability. Moreover, effectiveness depends on students having access to Internet-connected mobile devices with reliable GPS functionality, which may not be universally available. GPS reliance also poses challenges in environments such as multi-level malls or areas with weak signal reception, potentially affecting learning quality.

Focus Group Analysis and Methodological Considerations

The focus group analysis was exploratory in nature. Formal qualitative coding was not applied because the primary goal was to identify broad themes and practical considerations rather than develop deep theoretical constructs. Future research should employ systematic coding and larger, more diverse samples to strengthen validity and generalizability.

Confronting the 53% "No" Response

The finding that 53% of survey respondents expressed reluctance to adopt an EdTech solution for location-based experiential learning warrants careful consideration. This hesitation does not necessarily indicate a rejection of the pedagogical value of experiential learning but rather highlights practical and institutional barriers that need to be addressed. Insights from the focus groups suggest that concerns around liability, student safety during off-campus activities, and compliance with technical requirements were significant factors. Additionally, instructors anticipated increased instructional effort, including the need to redesign course structures and manage logistics for field-based learning. These concerns underscore that successful implementation will require more than technology—it demands robust institutional support, clear safety protocols, and targeted training for faculty. Framing this reluctance as an opportunity rather than a failure points to a critical area for future development: creating scalable strategies and resources that reduce perceived risks and workload, thereby enabling broader adoption across disciplines.

Future Directions: AI and 5G

While our findings highlight the need for institutional support, technological advancements such as emerging developments in AI and 5G offer promising avenues to address the barriers identified by the 53% of hesitant educators.

Artificial Intelligence (AI) integration within platforms like Presentria GO could streamline lesson design and support personalized learning. AI could enable features such as automated question generation, real-time instructional prompts, and feedback. Furthermore, AI could assist educators during activity setup through intelligent media recommendations, automated curation of location-relevant content, and difficulty-level suggestions. Natural Language Processing (NLP) may also enhance platform usability, making interfaces more intuitive and accessible.

Simultaneously, the rollout of fifth-generation (5G) mobile networks unlocks new possibilities for bandwidth-intensive educational experiences. With ultra-low latency and high-speed data transmission, 5G enables seamless

integration of immersive technologies such as Augmented Reality (AR) and Virtual Reality (VR). These enhancements could transform field trips into interactive, digitally enriched learning adventures, allowing students to manipulate virtual objects or explore simulated environments aligned with real-world locations (Moore, 2020).

As these innovations converge, mobile-driven, location-based experiential learning promises to become increasingly dynamic, personalized, and engaging, fostering responsive learning environments tailored to individual interests and needs.

CONCLUSION

In recent years, online lectures have proliferated, with students studying at home in addition to attending classes on campus. However, this shift has led to widespread Zoom fatigue, and many educators have observed declining attendance and performance. These challenges underscore the need for alternative strategies to re-engage students. One promising approach is empowering educators to design mobile-driven, location-based experiential field trips, enabling students to use smartphones to learn at designated checkpoints on campus or in nearby locations.

This multi-modal exploratory study sought to better understand these issues and evaluate the potential of experiential learning outside the classroom. The research involved 74 educators through surveys, 11 professors in expert interviews, 5 professors in a focus group, and 3 college students. Key findings include that 65% of surveyed educators identified Zoom fatigue as a significant barrier, and 86% expressed interest in safe, interactive learning experiences beyond traditional classroom or home-based instruction. Additionally, 47% indicated willingness to adopt an EdTech solution for location-based learning.

The growing demand for flexible, student-centered education highlights the need for innovative learning environments that adapt to diverse learner needs. This paper introduces Mobile-Driven Location-Based Experiential Learning as a practical, scalable, and engaging alternative to conventional instruction. Student interviews further confirmed the value of this approach, with participants describing Presentria GO as an EdTech tool that fosters interactive, inclusive, and impactful learning.

By integrating GPS-enabled tasks, gamification, and multimedia content within a sound pedagogical framework, tools like Presentria GO can reimagine education beyond classroom boundaries. They empower students to explore their environments, apply theoretical knowledge in real-world contexts, and engage in personalized, meaningful learning experiences.

As education continues to evolve—driven by technological advancements, shifting student expectations, and the growing emphasis on experiential approaches—EdTech tools will play an increasingly vital role in fostering engagement, resilience, and lifelong learning in outdoor and location-based contexts.

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