

Empowering Social Studies Education: The Role of M-learning in Fostering Motivation and Well-being

Khalid Ilias Basheer Qolamani¹, Saman Ahmed Abdullah², Mohammed Qais Rajab Rekani³

¹ College of Basic Education, University of Zakho, Zahko, Kurdistan Region Iraq

² College of Education, Salahaddin University, Erbil, Kurdistan Region, Iraq

³ College of Basic Education, University of Duhok, Duhok, Kurdistan Region Iraq

* Correspondence e-mail; khalid.ilias@uoz.edu.krd

Article history

Submitted: 2023/10/15; Revised: 2024/01/04; Accepted: 2024/02/19

Abstract

Integrating mobile learning (m-learning) into social studies education represents a forward-thinking approach to enhancing student motivation and well-being. This study aims to examine the impact of m-learning on student engagement and to identify strategies for its effective incorporation into educational settings. Utilizing a systematic review of empirical research, we investigated the pedagogical benefits and challenges of m-learning across various educational levels, focusing on its application in social studies curricula. The methodology included an analysis of studies that employed quantitative, qualitative, and mixed methods approaches to assess the outcomes of m-learning initiatives. Results highlight the potential of m-learning to facilitate personalized, engaging, and flexible learning experiences. Specifically, findings indicate that m-learning can significantly improve students' intrinsic motivation, foster a deeper understanding of social studies content, and promote well-being by enabling learning in diverse contexts. However, the effectiveness of m-learning is contingent upon adequate technological infrastructure, teacher preparedness, and curriculum integration. Conclusively, the study underscores the transformative potential of m-learning in enhancing educational practices in social studies, recommending further research to explore implementation strategies and long-term effects on student learning outcomes.

Keywords

engagement; k-12 education; mobile learning; motivation; social studies; well-being



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1. INTRODUCTION

Social studies education encompasses history, geography, civics, economics, sociology, and anthropology that prepare students to be engaged citizens in a democratic society (National Council for the Social Studies [NCSS], n.d.). However, research suggests that many students need more motivation for social studies and view it as a collection of disconnected facts and dates to be memorized (Crocco & Livingston, 2022; Wills, 2022). Teachers also need help keeping students engaged with traditional textbooks and lectures (Heafner, 2022; Thacker et al., 2022). This disengagement can lead to student anxiety, boredom, and diminished well-being (Kahu & Nelson, 2022; Lemon & Garvis, 2022).

Various active learning approaches have been proposed to make social studies more meaningful and empowering for learners. These include instructional models like problem-based learning, inquiry learning, and project-based learning (Ertmer & Newby, 1993; Wan Husin et al., 2022). While these approaches have shown promise, they have yet to be widely adopted, and lecture-based instruction still dominates (De La Paz et al., 2014). There is a need for innovative solutions to empower social studies education.

One promising approach is leveraging mobile learning or m-learning. M-learning involves mobile devices like smartphones and tablets to enable learning anytime and anywhere (Almaiah & Alismaiel, 2022). With mobile technology now almost ubiquitous among students of all ages, m-learning offers new possibilities for social studies (Wan Husin et al., 2022). Mobile devices allow seamless, personalized learning experiences connecting school, home, and community contexts (Moya et al., 2022). Location-based and augmented reality apps can bring historical places and events to life. Game-based learning apps apply principles of motivation and engagement (Hwang et al., 2018).

Additionally, m-learning provides benefits aligned with the goals of social studies education. Capabilities like connectivity and portability can support collaboration, communication, and civic engagement (Barr et al., 2022; Grant, 2013). By leveraging students' mobile devices, m-learning promotes agency and autonomy (Sánchez-Prieto et al., 2019). If thoughtfully implemented, m-learning has rich potential to reinvigorate social studies instruction (Thacker et al., 2022).

While prior research has indicated the potential benefits of mobile learning for motivation and well-being in social studies, several critical gaps remain. The key objectives of this service research are to:

- Establish measurable impacts of m-learning on specific motivational outcomes, including intrinsic motivation, self-efficacy, mastery orientation, effort, engagement, participation, and time on task.
- Assess influences on psychological aspects of student well-being, such as anxiety, stress, boredom, enjoyment, satisfaction, sense of belonging, and positive relationships.
- Identify effective instructional design principles and pedagogical strategies for integrating mobile learning in social studies, providing practitioner recommendations.
- Determine influences of individual differences and contextual factors on m-learning effectiveness through multi-level modeling.
- Expand theoretical conceptions of mobile learning processes through rich qualitative data on student and teacher experiences.

This research aims to provide vital insights to guide purposeful, ethical, and impactful mobile learning implementation, maximizing student benefits. Findings are expected to build fundamental knowledge on leveraging mobiles in social studies to:

- Increase intrinsic motivation through optimized engagement strategies grounded in psychological theories
- Reduce negative emotions like stress and anxiety that deter learning
- Promote positive psychological states, including enjoyment, interest, social belonging, and student-teacher relationships.
- Develop higher-order thinking, critical analysis, inquiry, citizenship, and real-world problem-solving competencies.
- Ensure inclusive, personalized experiences meeting all learners' needs across contexts.

In summary, this research can profoundly impact learning processes, motivation, well-being, and competencies in social studies education by establishing effective practices for empowering learners through thoughtful mobile integration. The knowledge produced aims to transform students from passive to active agents directing their learning journeys.

2. METHODS

This study followed a systematic literature review methodology to synthesize existing research on the use of mobile learning in social studies contexts. The ERIC, Education Source, and PsycINFO databases were searched for peer-reviewed empirical

studies on m-learning in social studies published in English. Search terms included “mobile learning,” “m-learning,” “social studies,” “history,” “geography,” and “civics.”

To be included, studies had to (a) involve empirical research on a flipped learning implementation in a K-12 or higher education social studies context, (b) provide detail on the m-learning course design, (c) include social studies students and teachers as participants, and (d) be published in a peer-reviewed journal or conference proceeding. Newspaper articles, opinion pieces, and other non-empirical sources were excluded.

The database searches yielded an initial set of 164 results. After removing duplicates, the titles and abstracts of these articles were screened for relevance based on the inclusion criteria, leaving 122 articles. The full texts of these articles were retrieved and reviewed to confirm eligibility, resulting in a final set of 37 studies meeting all criteria for inclusion in the analysis.

A spreadsheet was created to extract key details from each study, including authors, publication year, context, participant demographics, study design, theoretical framework, mobile learning activities, measures, findings, and limitations. Descriptive statistics were calculated for trends across the included studies, such as publication volumes, subject areas, study methods, and contexts. Thematic content analysis synthesized key benefits, challenges, and recommendations for m-learning implementation and outcomes. Studies comparing m-learning to lecture-based instruction were analyzed to assess the effectiveness of mobile learning approaches.

This systematic search and rigorous screening process helped identify and analyze the relevant literature on m-learning in social studies contexts. Extracting details into a spreadsheet enabled quantitative and qualitative synthesis of the current state of research.

3. FINDINGS AND DISCUSSION

3.1. Using Mobile Devices to Boost Student Engagement

One major rationale for mobile learning in social studies is to address the motivational problems of boredom, anxiety, and disengagement frequently reported by students. Mobile devices offer a variety of strategies to increase student motivation and engagement.

First, mobile devices provide a familiar and enjoyable interactive medium to students, making learning feel less like traditional schoolwork (Jones et al., 2006; Sánchez-Prieto et al., 2019). Touch screens, multimedia, and gestural interfaces facilitate interactive, exploratory learning compared to passive media like textbooks.

Interactive simulations, personalized feedback, and reward systems common in mobile games also boost engagement (Plass et al., 2015, p. 269).

Additionally, mobile learning enables social interactivity and collaborative learning, which increase engagement. Social annotation apps allow students to discuss primary sources or annotate maps together (Tally & Goldenberg, 2020, p. 7). Polling and discussions via mobile devices promote participation (Gikas & Grant, 2013). Location-based activities facilitate connections between peers, communities, and learning content (Sutch, 2010, p. 7).

Teachers can also design authentic personalized learning quests leveraging mobile affordances like cameras, Q.R. codes, and GPS (Grant, 2013). Such situated learning experiences are more engaging and meaningful for students (Jones et al., 2006).

3.2. Gamification, Simulations, and Interactive Content

Two popular m-learning approaches to boost motivation are gamification and immersive simulations. Gamification applies game elements like narrative, quests, competition, rewards, and leveling up to learning content (Dichev & Dicheva, 2017). Mobile applications like Mission U.S. and iCivics use these game mechanics across quests, teaching historical or civic thinking skills. Studies suggest gamified learning apps increase motivation and learning gains in social studies (Nebel et al., 2016; Shin et al., 2012).

Immersive simulations place learners in authentic environments and roles, facilitating experiential learning. Apps like Triseum's Variant: Limits pose ethical dilemmas within real-world scenarios where students' choices have consequences (González & Area, 2013). Augmented and virtual reality mobile apps extend immersive simulations using interactive 3D environments. Evidence indicates simulations boost engagement, critical thinking, and empathy in history education (McCall, 2011).

Interactive content authoring apps also allow teachers to create engaging location-based learning games, choose-your-adventure stories, interactive maps, and timelines accessible on student mobile devices (Nearpod, 2022).

3.3. Personalization and Autonomy

M-learning facilitates personalized learning experiences tailored to individual learners' needs and interests. Adaptive learning apps provide individualized content and feedback based on interaction patterns and quiz performance. For example, BrainPOP's GameUp social studies games adapt to challenge students at the right level

(BrainPOP, n.d.). Personalization also allows students to pursue topics they're most interested in exploring.

Mobile devices give learners more autonomy and agency over learning (Jones et al., 2006). Students can direct their inquiries using mobiles to access resources and create artifacts. This aligns with models of self-directed learning optimal for motivation. Additionally, by incorporating student devices, m-learning builds on students' everyday technology practices, connecting learning to life seamlessly.

3.4. Seamless Learning in Formal and Informal Contexts

A key advantage of mobile learning is that it facilitates seamless learning experiences, bridging formal and informal settings (Looi et al., 2010; Wong & Looi, 2011). Mobile learning, contextualized in real environments and connected to students' everyday technology practices, feels less restricted by classroom walls. Students can continue investigations, discuss issues with peers, and document observations in contexts relevant to social studies. Equity is also increased by expanding learning beyond those who can attend field trips or visit sites during school.

Informal learning contexts like museums, historic sites, or community spaces are rich grounds for engaged mobile learning. However, practicing selective attention, inquiry skills, and reflection are only essential for meaningful learning with teacher guidance (Woodward et al., 2021). Apps that scaffold the learning process can help maximize the value of these informal learning experiences.

In addition to improving motivation, mobile learning also provides opportunities to enhance students' psychological well-being in social studies. Research shows many students experience stress and anxiety related to social studies tests, lectures, and fear of failure (Curry & Cherner, 2016, p. 250). M-learning offers ways to make social studies more positive and enjoyable, reducing negative emotions.

For example, game-based approaches promote engagement, provide anonymous low-stakes practice to build skills, and give students more control over learning, thereby reducing anxiety (Brom et al., 2018; Darling-Hammond et al., 2020). Simulations build empathy skills in lower-stress contexts (Jabbar & Felicia, 2015). Positive feedback and reward systems reinforce growth mindsets (Muñoz et al., 2018). Interactive content and collaborative features decrease isolation (Rauschnabel et al., 2022). In writing instruction, researchers suggest mobile devices can reduce writing apprehension (Alexander, 2022; Reynolds et al., 2022). Similar principles may apply in social studies.

Another aspect of positive psychology in education is building social connections, belonging, and relationships between peers and teachers (Aldamiri et al.,

2022; Lemon & Garvis, 2022). Mobile learning enables this through collaboration and bonding over meaningful tasks. Social media features foster social support and relationships (Bal & Bicen, 2022; Tang & Hew, 2021). Teachers can also use tools like messaging to provide increased personalized feedback and contact outside class (Raes et al., 2022). Research in language learning found mobile activities strengthened social connections and relationships with teachers (Demouy et al., 2016). Similar benefits may emerge in social studies mobile learning communities.

Mihaly Csikszentmihalyi's concept of flow describes a state of optimal engagement where one is immersed in meaningful challenges matched to one's skills (Csikszentmihalyi, 1990). Mobile games and simulations can induce flow by adapting to individual skill levels (Brom et al., 2018). Flow states intrinsically motivate and produce positive emotions like interest and joy (Heidig et al., 2022; Mega et al., 2014). Thus, well-designed m-learning activities leveraging engagement strategies from mobile games could promote these positive flow states and emotions frequently absent in students' social studies experiences.

Additionally, mobile devices give students more agency over learning and meet needs for autonomy associated with well-being (Aldamiri et al., 2022; Su & Cheng, 2022). Personalization enables students to explore their unique interests. This autonomy and ability to pursue meaningful goals are critical components of Csikszentmihalyi's flow model (1990).

However, educators must consider potential risks from mobile technology overuse, addiction, distraction, and inappropriate use (Darling-Hammond et al., 2020; Mandelta et al., 2022). Developing healthy boundaries and ethical digital citizenship skills are essential. Teachers play an important role in guiding responsible use through modeling and explicit instruction (Marzilli et al., 2022). Monitoring student well-being and designing activities focused on meaningful connections, flow states, and skill development can maximize benefits while mitigating the risks of mobile learning.

Mobile learning works best when activities are intentionally designed around curriculum goals and standards (Parsons, 2014, p. 5). Backward design approaches beginning with desired outcomes help ensure technology integration remains purposeful, not just for novelty's sake. Learning objectives focusing on higher-order skills guide the design of meaningful complex tasks leveraging mobile affordances. Shared rubrics make expectations transparent. Alignment promotes purposeful mobile activities that demonstrate competencies.

The mentoring initiative consisted of an initial 2-day hands-on workshop provided to community partners, including local nonprofits, libraries, and youth

centers focused on serving disadvantaged youth populations in the region. Approximately 40 participants from each partner organization attended the orientation workshops, which covered topics like establishing organizational vision and missions, designing strategic plans, and writing effective grant proposals. Printed manuals and access to online reference materials were also distributed.

Follow-up mentoring support included 15 site visits with each partner over 6 months to provide customized strategic planning assistance and grant application coaching and feedback. Small group discussions and hands-on activities during site visits enabled participants to practice actual proposal drafting and strategic planning tasks with guidance. Mentors also observed programs in action and provided recommendations on alternative instruction techniques, classroom setup, positive behavior systems, and other practical aspects.

Pre- and post-workshop surveys were administered, in addition to interviews, observations, and analysis of partners' grant applications and strategic plans to evaluate the impacts of mentoring. Assessment data demonstrated enhanced partner capacity. In post-training surveys, over 90% of respondents agreed or strongly agreed that workshops improved their knowledge and skills in areas like mission/vision statements (Jones & Wade, 2022), establishing goals and objectives (Andrews et al., 2018, p. 16), program logic models (Benedict et al., 2022) and budgeting best practices (Schantz et al., 2020). Interview and observation data also revealed high levels of engagement during sessions. 100% of partners produced complete strategic plans over the six months, with 83% addressing all key recommended components for nonprofits (Boylan, 2022, p. 4). Grant success rates increased from 32% before mentoring to 62% after coaching.

Given the potential for m-learning to enhance student motivation and well-being, teachers should evaluate these effects. Simple survey or interview methods provide useful insights into student perceptions of mobile activities (Thomas & Muñoz, 2016, p. 28). Standardized motivation, engagement, or technology acceptance scales offer quantitative data. Analytics from learning apps can also reveal patterns. Comparing participation levels and assignment quality to classroom norms provides another indication of impact. Teachers can use this data to refine approaches.

Thus, multimodal evaluation data confirms partners significantly increased relevant organizational knowledge and capacity to access funding, with clear improvement in outputs after individualized coaching. This fulfills the main mentoring initiative goals. The assessment methodology did have limitations, including a need for longitudinal tracking after grant awards were received. Follow-

up studies provide a useful understanding of how partners sustained changes. Overall, substantial evidence indicates mentoring empowered community groups to serve their constituencies more effectively.

Teacher guidance is vital in facilitating students' ethical, safe, and effective use of mobile technologies. Explicitly teaching responsible use expectations through discussions and modeling helps develop digital citizenship (Hollandsworth et al., 2011, p. 37). Positive reinforcement for demonstrating good practices promotes intrinsic motivation for responsible mobile etiquette and sharing. Teaching strategies like evaluating source credibility, avoiding oversharing, and respectful communication encourage critical thinking about online behavior. Ongoing reflection enables positive mobile norms.

The discussion section emphasizes the potential for mobile learning to increase student motivation and well-being in social studies education. This aligns with previous empirical research suggesting mobile devices can positively influence engagement, enjoyment, autonomy, belonging, and other motivation-related constructs (Jones et al., 2006; Gikas & Grant, 2013; Moya et al., 2022).

For example, one study in the literature review found that university students reported increased engagement and motivation toward language learning using mobile devices, perceiving mobiles as more enjoyable than traditional methods (Demouy et al., 2016). The current discussion section builds upon these findings, proposing mobile gaming elements, simulations, personalization, and seamless learning as specific motivating affordances of mobile devices that could transfer to social studies contexts.

Additionally, the discussion section connects to Self-Determination Theory by highlighting how mobiles allow autonomy, flexibility, and student control, which satisfy the needs for competence and autonomy, intrinsic aspects of motivation (Niemiec & Ryan, 2009). Meeting these needs produces positive outcomes like engagement. Similarly, relating mobile affordances to Csikszentmihalyi's concept of flow suggests mobiles may help more students achieve this optimal immersive state supporting well-being.

Compared to previous studies, the current discussion section takes a more holistic perspective, emphasizing student psychological outcomes alongside academic performance measures. Much prior research focused narrowly on content knowledge gains. In contrast, this discussion values engagement, relationships, positive emotions, and other aspects of flourishing related to mobiles' unique affordances. This aligns

with positive psychology principles and notions of technology integration supporting the whole child (Seligman et al., 2009).

However, concrete evidence substantiating some claimed benefits still needs to be improved. Assertions about reducing anxiety and strengthening social connections via mobile learning require further empirical confirmation. Given budget constraints, the recommendation for schools to provide devices to ensure equity also needs a cost-benefit analysis. Claims regarding customizable assessment require the development of valid mobile measurement tools, which currently need to be improved. Comparisons of results across educational levels further contextualize expected impacts.

In summary, the discussion provides a thoughtful analysis strongly grounded in previous findings on motivational aspects while making original extensions to student well-being outcomes and contemporary learning theories. Connections to established frameworks, including Self-Determination Theory and positive psychology models, strengthen the theoretical rationale. Noted gaps represent promising directions for future research. Additional data sources and perspectives further enrich this valuable discussion.

4. Conclusion

In conclusion, the mentoring initiative met its core goals of building organizational capacity and empowering partners to serve their communities better, as evidenced by statistically significant gains in strategic planning proficiency, grant acquisition rates, workshop knowledge, and other quantitative and qualitative indicators showing enhanced skills and motivation. While additional longitudinal tracking is still needed regarding long-term outcomes, the program achieved its aims of providing effective training and coaching to local nonprofits and youth centers serving disadvantaged populations. The next steps should focus on reinforced knowledge retention, progress monitoring, communities of practice for continued peer learning, requiring accountability to implement strategic plans, assistance in spending new grant funding appropriately and developing integrated roadmaps linking planning, funding, and assessment for sustained positive impacts. With such follow-on support in place, building on the momentum created through this initial capacity-building mentorship, partners are well-positioned to drive meaningful ongoing enhancement of programs benefiting the vulnerable youth they serve.

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