The Role Of Digital Learning Platforms In Enhancing Self-Regulated Learning Among Secondary School Students And Teachers For National Development

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Abstract

Self-regulated learning (SRL) is a crucial skill that enables students and teachers to take control of their educational and instructional processes. Digital learning platforms provide an interactive environment that fosters goal-setting, self-assessment, and progress monitoring, enhancing SRL among secondary school students and teachers. This qualitative research explores the role of digital learning platforms in promoting SRL while identifying challenges encountered in their implementation. Data was collected through in-depth interviews and focus group discussions with secondary school students and teachers. Findings indicate that digital platforms significantly contribute to SRL development by supporting independent learning and teaching strategies. However, barriers such as digital literacy gaps, inadequate infrastructure, and low motivation levels hinder optimal utilization. The study suggests improvements in digital accessibility, teacher training, and student engagement strategies to maximize the benefits of digital learning platforms.

Keywords: Self-regulated learning, digital learning platforms, secondary education, teacher training, student engagement.

1. Introduction

1.1 Background of the Study

In contemporary education, digital learning platforms have become essential tools for both students and teachers. These platforms, including Diksha, Byju's, and Google Classroom, provide structured learning experiences, promote self-paced education, and encourage self-regulation in academic activities (Kizilcec et al., 2017). The National Education Policy (NEP) 2020 in India emphasizes the integration of digital education to enhance self-regulated learning (SRL) by making learning more flexible, accessible, and student-centered (Government of India, 2020).

Self-regulated learning (SRL) involves cognitive, metacognitive, and motivational processes that enable learners to plan, monitor, and evaluate their learning independently (Zimmerman, 2002). Digital learning platforms support these processes through interactive content, real-time feedback, and self-assessment tools (Pintrich, 2004). However, despite these advantages, challenges such as unequal digital access, lack of teacher training, and motivational constraints impact the effectiveness of these platforms (Broadbent & Poon, 2015). This study investigates the extent to which digital platforms enhance SRL among secondary school students and teachers, alongside identifying barriers to their effective use.

1.2 Research Objectives

1. To examine how digital learning platforms contribute to the development of self-regulated learning (SRL) skills among secondary school students and teachers.

2. To identify challenges faced by students and teachers in utilizing digital learning platforms effectively.

2. Literature Review

2.1 Self-Regulated Learning and Digital Platforms

Self-regulated learning (SRL) refers to the ability of learners to plan, monitor, and evaluate their learning independently (Zimmerman, 2002). According to Pintrich (2004), SRL consists of cognitive, motivational, and behavioral components, all of which contribute to effective learning outcomes. Digital learning platforms provide students with resources that facilitate SRL by promoting self-paced learning, enhancing problem-solving skills, and offering structured assessments (Dabbagh&Kitsantas, 2012).

Azevedo and Hadwin (2005) highlight that digital learning platforms serve as scaffolds for SRL by enabling students to regulate their learning through personalized learning experiences. Online platforms allow students to set goals, track their progress, and receive immediate feedback, which strengthens their metacognitive abilities (Broadbent & Poon, 2015). Similarly, Dabbagh and Kitsantas (2012) argue that

digital tools play a vital role in fostering self-regulation by allowing students to customize their learning experiences, engage in reflective practices, and utilize interactive resources.

2.2 Challenges in Implementing Digital Learning for SRL

Despite the potential of digital platforms in enhancing SRL, challenges persist in their implementation. Jansen et al. (2021) state that limited access to digital devices, lack of teacher training, and inadequate digital infrastructure significantly hinder the effectiveness of online learning. Moreover, Broadbent and Poon (2015) found that while digital learning fosters SRL, it requires students to possess high levels of self-motivation and time-management skills. Without proper guidance and engagement strategies, students may struggle to maintain effective learning habits.

Teacher preparedness is another critical factor influencing the success of digital learning platforms in fostering SRL. According to Koh et al. (2016), educators who receive professional training in integrating digital tools into their teaching practices are more effective in guiding students to develop SRL skills. Therefore, improving teacher training and addressing infrastructural challenges are necessary to optimize the effectiveness of digital learning platforms in promoting SRL.

3. Methodology

3.1 Research Design

This study employs a qualitative research approach to explore the role of digital learning platforms in enhancing SRL among secondary school students and teachers. The research focuses on understanding participants' experiences, challenges, and perceptions regarding digital learning.

3.2 Data Collection

Data was collected through in-depth interviews and focus group discussions with secondary school students and teachers. Interviews were semi-structured, allowing participants to share detailed insights regarding their use of digital platforms for SRL. Focus group discussions provided an interactive setting to understand collective challenges and perspectives.

3.3 Sampling

This study involved a total 80 participants, selected through purposive sampling from two CBSE affiliated schools in Bareilly city. The sample comprised 50 secondary school students and 30 teachers, ensuring a well-balanced representation of both learners and educators to explore the role of digital learning platforms in fostering self-regulated learning.

3.3.1 Sample Distribution of Students and Teachers

Schools	Number of Students	Number of Teachers	Total Participants
CBSE School 1	25	15	40
CBSE School 2	25	15	40
Total	50	30	80

4. Findings and Discussion

4.1 Findings

4.1.1 Student Responses

Key Findings	Percentage	Number of Students (N=50)
Believe digital platforms support SRL	76%	38
Face challenges due to limited access	56%	28
Require better teacher guidance	70%	35

4.1.2 Teacher Responses

Key Findings	Percentage	Number of Teachers (N=30)
Agree digital platforms enhance teaching	83%	25
Emphasize need for professional training	73%	22
Observe students struggle with motivation	67%	20

4.2 Discussion

Findings indicate that most students (76%) believe that digital learning platforms support SRL by allowing flexible and self-paced learning. However, 56% of students reported facing challenges due to limited digital access. Additionally, 70% of students highlighted the need for better teacher guidance in digital learning environments.

Among teachers, 83% agreed that digital platforms enhance instructional strategies, but 73% emphasized the necessity of professional training in digital tools. Moreover, 67% of teachers observed that students struggle with self-motivation, requiring structured guidance to effectively utilize digital learning platforms.

5. Conclusion

Digital learning platforms significantly enhance self-regulated learning (SRL) among secondary school students and teachers. The findings highlight the effectiveness of these platforms in promoting independent learning and teaching methods. However, several challenges, including digital access limitations, inadequate teacher training, and low student motivation, hinder their full potential.

6. Recommendations

To optimize the benefits of digital learning platforms, the following recommendations are proposed:

1. **Enhancing Digital Infrastructure**: Policymakers should invest in improving internet connectivity and access to digital devices for students and teachers.

2. **Teacher Training Programs**: Regular workshops should be conducted to train teachers in integrating digital tools into instructional practices.

3. **Student Engagement Strategies**: Schools should implement structured programs to support students in developing SRL skills through digital platforms.

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