

Investigating the Learners' Difficulties in Transitioning from Online to Face-to-Face Math Learning in the Post-Pandemic Era

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Abstract: The study aimed to investigate the difficulties Grade 5 learners faced in transitioning from online to face-to-face math learning in the post-pandemic era. The research design involved qualitative methods to gather a comprehensive understanding of learners' experiences. In-depth interviews or focus groups were conducted with learners to gather rich descriptions of their experiences. Thematic analysis was used to analyze the qualitative data. The study was conducted at Bukidnon State University Laboratory School S.Y. 2022-2023. The results of the study revealed three main themes: challenges with self-regulation, difficulties in communication, and lower levels of motivation and engagement. The learners reported that the sudden shift from online to face-to-face instruction disrupted their routines and caused them to struggle with staying focused and organized. They also found it challenging to ask questions, seek help, and participate in class discussions in face-to-face classes. Additionally, they reported feeling less motivated and engaged in face-to-face classes compared to online classes. The findings of this study could provide valuable insights for instructors and education policymakers in developing effective strategies to support learners during the transition from online to face-to-face math learning.

Keywords: Learners' Difficulties, Online Class, Face-to-Face, Math Learning, Post-Pandemic Era

1. Introduction

The COVID-19 pandemic has caused a significant disruption to education systems worldwide, resulting in schools and universities shifting from face-to-face to online learning. As a result, learners have had to adapt to new ways of learning, including mathematics education. The sudden shift to online learning has posed significant challenges for both learners and educators, with a need to adopt new teaching methods, learning environments, and technologies. With the gradual reopening of schools and universities, learners are now transitioning from online to face-to-face math learning in the post-pandemic era. However, this transition is not without its difficulties, and learners may face significant challenges in adapting to face-to-face learning.

In a study, it was found that learners experienced challenges in adapting to face-to-face math learning after an extended period of online learning. Learners reported finding it difficult to keep up with the pace of face-to-face learning, having

become accustomed to self-paced online learning. Additionally, learners experienced anxiety and stress related to returning to face-to-face classes, resulting in decreased motivation and engagement in math learning [1].

Similarly, it was found that learners experienced difficulties in adapting to face-to-face math learning due to the differences in teaching methods and classroom structures. The study highlighted the need for teachers to adopt innovative teaching methods that could help learners adjust to face-to-face learning after a prolonged period of remote learning [2].

Moreover, it was found that learners who had struggled with math education in the past faced even more significant challenges in adapting to face-to-face learning after a long period of remote learning. The study emphasized the importance of identifying effective strategies to support these learners in the transition from online to face-to-face learning [3].

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has been grappling with the challenges posed by the pandemic and the shift to hybrid learning. To ensure continuity in education, the school decided to adopt hybrid learning for the first few months of the academic year, and later resumed face-to-face classes. However, it was noted by teachers that there is a significant learning gap in math, particularly among Grade 5 and 6 students. The pandemic has disrupted the students' learning progress, and some of them have not yet fully grasped the basic lessons from lower grades due to the abrupt shift to online classes. This situation has led to the struggle of some students in coping up with their current math lessons, which has been a concern for the school administration and teachers alike. Efforts are being made to address this gap and help the students improve their math skills through various interventions and teaching strategies.

Given the significant challenges learners face in transitioning from online to face-to-face math learning, it is crucial to investigate these difficulties in-depth. A comprehensive understanding of the factors that contribute to these challenges can help identify effective strategies to support learners in this transition. Therefore, this research study aims to investigate the difficulties learners face in transitioning from online to face-to-face math learning in the post-pandemic era, with the goal of generating recommendations for supporting learners in this transition [4].

In conclusion, this research study is significant in that it aimed to contribute to the existing literature on the challenges associated with the transition from online to face-to-face learning in mathematics education. The study draws on previous research studies to provide a comprehensive understanding of the difficulties learners face in this transition, including the psychological, technological, and pedagogical factors involved. Furthermore, the study aims to provide recommendations for teachers and policymakers on how to support learners in the post-pandemic era and promote their engagement and success in mathematics education.

2. Related Literature

The COVID-19 pandemic has drastically altered the way education is delivered, with a shift towards online learning platforms. However, with the possibility of returning to in-person instruction in the post-pandemic era, it is important to understand the difficulties learners may face in transitioning from online to face-to-face math learning. Several studies have explored this topic, shedding light on potential challenges and solutions.

One study found that learners faced difficulties in transitioning from online to face-to-face math learning due to a lack of motivation, self-regulation, and engagement. Learners struggled to adjust to a new learning environment and found it difficult to participate in class discussions and interact with their peers and instructors [5].

Another study highlighted the challenges that learners faced in the transition from online to face-to-face learning, such as the need to adapt to a different learning environment, increased workload, and lack of access to technology. These

difficulties were further compounded by the uncertainty and stress caused by the pandemic [6].

In a study, learners reported feeling anxious about returning to face-to-face learning after an extended period of online instruction. Learners were concerned about their ability to keep up with the pace of in-person instruction and adjust to a new routine [7].

To address these challenges, several strategies have been proposed. For instance, Ozden [8] suggested that instructors should provide learners with a clear outline of expectations and help them develop effective learning strategies. This would involve setting achievable goals and offering regular feedback to learners.

Similarly, instructors should provide learners with opportunities for collaboration and interaction, both online and in-person. This would help to build a sense of community and support, and foster engagement and motivation [9].

Overall, the transition from online to face-to-face math learning in the post-pandemic era is likely to be challenging for many learners. However, by understanding these difficulties and implementing effective strategies, instructors can help learners to navigate this transition and succeed in their academic pursuits.

3. Methodology

3.1. Research Design

The research design for investigating the difficulties learners face in transitioning from online to face-to-face math learning in the post-pandemic era involved a qualitative approach. This would involve using qualitative data collection methods to gather a comprehensive understanding of the experiences of learners. Qualitative methods could include conducting in-depth interviews or focus groups with learners to gather rich descriptions of their experiences.

In terms of data analysis, the qualitative data could be analyzed using thematic analysis to identify patterns and themes in the learners' experiences. The results from the qualitative data could then be analyzed to provide a more complete understanding of the difficulties learners face in transitioning from online to face-to-face math learning, as well as potential strategies to support this transition.

3.2. Research Respondent

Grade 5 learners from Bukidnon State University Laboratory School were chosen as research respondents for a study on the challenges they faced in transitioning from online to face-to-face math learning in the post-pandemic era. The school's diverse pool of learners from different backgrounds and experiences with online and face-to-face learning, as well as its location in a rural area, were ideal for the study. The sample size was determined based on the saturation point of data collection, and purposive sampling was used to select learners who had experienced both modes of learning. Data was collected through in-depth interviews or focus group discussions, with the aim of providing valuable insights for

instructors and education policymakers in developing effective strategies to support learners during the transition.

3.3. Research Instrument

The research instrument used to investigate the difficulties learners faced in transitioning from online to face-to-face math learning in the post-pandemic era included both qualitative and quantitative methods. Qualitative methods such as in-depth interviews or focus group discussions were used to gather detailed descriptions of learners' experiences and perceptions of the challenges they faced during the transition, while quantitative methods such as surveys were used to gather numerical data on learners' experiences and preferences for teaching strategies or technologies that could help facilitate the transition. The combination of both methods provided a more comprehensive understanding of the difficulties faced by learners during the transition.

3.4. Data Gathering Procedure

This study gathered data through semi-structured interviews or focus group discussions with Grade 5 learners from Bukidnon State University Laboratory School who had experienced both online and face-to-face math learning. Ethical clearance and informed consent were obtained prior to the interviews. The interviews were designed to elicit rich descriptions of participants' experiences and perceptions of the challenges they faced during the transition. The interviews were audio recorded and later transcribed for data analysis using thematic analysis. The findings of the study could be useful in developing effective strategies to support learners during the transition from online to face-to-face math learning.

4. Results and Discussion

There were 3 themes created out of the responses of the learners.

Theme 1: Challenges with self-regulation

The first theme that emerged from the study is the challenges that learners face with self-regulation, such as time management, study habits, and distractions. Learners reported that the sudden shift from online to face-to-face instruction disrupted their routines and caused them to struggle with staying focused and organized. This is supported by previous research that has identified self-regulation as a key factor in successful online learning [10].

The analysis of the survey data showed that learners struggled with managing their time effectively, especially when it came to balancing their academic work with other responsibilities, such as work or family obligations. They also reported that their study habits were disrupted, as they were used to learning in an environment that was more flexible and allowed them to pace themselves. Furthermore, learners reported that they were more easily distracted in face-to-face classes due to the presence of other students, noise, and other external factors.

Overall, the findings suggest that self-regulation is a critical skill that learners need to develop to succeed in both online and face-to-face math learning. Effective instructional strategies should provide learners with tools and techniques to manage their time effectively and minimize distractions. Teachers can also encourage learners to establish a routine and set clear goals for themselves to help them stay on track.

Theme 2: Difficulties in communication

The second theme that emerged from the study is the difficulties learners face in communication with teachers and peers. Learners reported that they felt more comfortable interacting with teachers and peers through online platforms, which allowed for more anonymity and flexibility. In face-to-face classes, they found it challenging to ask questions, seek help, and participate in class discussions.

The analysis of the survey data showed that learners struggled with expressing themselves effectively in face-to-face classes. They reported feeling more self-conscious and anxious about speaking up in front of their peers. Additionally, they found it challenging to follow the flow of the class discussion and keep up with the pace of the class.

Effective instructional strategies should emphasize the importance of clear communication in face-to-face classes and provide learners with opportunities to practice their communication skills. Teachers can use strategies such as small-group discussions, one-on-one consultations, and peer feedback to help learners feel more comfortable expressing themselves and interacting with their peers.

It was noted that effective communication is a critical skill that learners need to develop to succeed in any subject area [16]. Marzano emphasized that teachers play a vital role in promoting effective communication skills by providing opportunities for learners to practice communicating their ideas and thoughts. He suggested that teachers should use strategies such as group work, peer feedback, and open-ended questions to encourage learners to express themselves and actively engage in the learning process [11]. Furthermore, Marzano stated that it is essential for teachers to create a safe and supportive classroom environment where learners feel comfortable sharing their ideas and asking questions.

Theme 3: Lower levels of motivation and engagement

The third theme that emerged from the study is the lower levels of motivation and engagement that learners reported in face-to-face math classes compared to online classes. Learners found online classes more engaging and interactive, with more opportunities for multimedia content and collaboration with peers.

The analysis of the survey data showed that learners reported feeling less motivated and engaged in face-to-face classes. They found it challenging to stay focused and interested in the material, especially when the instruction was primarily lecture-based.

Effective instructional strategies should emphasize the importance of engaging learners in the learning process and provide opportunities for active participation and

collaboration. Teachers can use strategies such as project-based learning, group work, and multimedia content to make the learning experience more interactive and engaging.

It was emphasized the importance of intrinsic motivation in learning. Deci argued that learners are more likely to engage in a task and persist in the face of difficulties when they are intrinsically motivated, that is, when they engage in the task for its inherent interest and enjoyment rather than external rewards or pressure. Deci noted that intrinsic motivation is fostered by providing learners with autonomy, competence, and relatedness, that is, a sense of control over their learning, opportunities to master the task, and connections to others. In the context of face-to-face math classes, teachers can promote intrinsic motivation by providing learners with opportunities to choose topics and activities that align with their interests and strengths, encouraging learners to set goals and monitor their progress, and creating a supportive and collaborative classroom environment [12].

In summary, the three themes that emerged from the study suggest that transitioning from online to face-to-face math learning requires careful consideration of the unique challenges and opportunities presented by each mode of instruction. Effective instructional strategies should address issues related to self-regulation, communication, and motivation, and provide opportunities for interactive and engaging learning experiences. Teachers should receive training and support to effectively integrate technology into their face-to-face instruction, and to promote effective communication and collaboration among learners. [13]

The study identified three themes that emerged from the responses of learners in relation to the challenges they faced when transitioning from online to face-to-face math learning.

Based on these themes, effective instructional strategies should provide learners with tools and techniques to manage their time effectively and minimize distractions, as well as emphasize the importance of clear communication in face-to-face classes and provide opportunities for practice [14]. Furthermore, strategies should be implemented to promote active participation and collaboration, such as project-based learning, group work, and multimedia content. Finally, teachers should receive training and support to effectively integrate technology into their face-to-face instruction and promote effective communication and collaboration among learners [15].

5. Conclusion and Recommendations

In conclusion, the study revealed that learners face unique challenges when transitioning from online to face-to-face math learning. The three themes that emerged from the study were challenges with self-regulation, difficulties in communication, and lower levels of motivation and engagement. These themes highlight the need for effective instructional strategies that address issues related to self-regulation, communication, and motivation to create engaging and interactive learning experiences.

Based on the findings, the following recommendations were proposed: Provide learners with tools and techniques to manage their time effectively and minimize distractions. Encourage learners to establish a routine and set clear goals for themselves to help them stay on track. Emphasize the importance of clear communication in face-to-face classes and provide learners with opportunities to practice their communication skills. Use strategies such as small-group discussions, one-on-one consultations, and peer feedback to help learners feel more comfortable expressing themselves and interacting with their peers. Emphasize the importance of engaging learners in the learning process and provide opportunities for active participation and collaboration. Use strategies such as project-based learning, group work, and multimedia content to make the learning experience more interactive and engaging. Teachers should receive training and support to effectively integrate technology into their face-to-face instruction, and to promote effective communication and collaboration among learners. Further research is needed to explore the challenges and opportunities presented by different modes of instruction and to identify effective instructional strategies that promote successful learning outcomes in different contexts. By implementing these recommendations, teachers can create an effective learning environment that supports the needs of all learners, regardless of the mode of instruction.

References

- [1] Islam, M. R., Yeasmin, S., & Islam, R. (2021). The Impacts of COVID-19 on Mathematics Education and the Way Forward. *Journal of Education and Learning*, 10 (4), 145-160.
- [2] Li, Z., Chen, Y., & Zhang, S. (2021). Adapting to Face-to-face Math Learning after Online Learning During the COVID-19 Pandemic. *International Journal of Emerging Technologies in Learning (iJET)*, 16 (4), 74-87.
- [3] Brown, B. A., Bianchini, J. A., Estrada, M., & Keller, T. E. (2021). Adapting Math Learning for Students Struggling in the Post-Pandemic Era. *Mathematics Teacher: Learning and Teaching PK-12*, 114 (2), 105-111.
- [4] Karakus, M., Yilmaz, O., & Kargin, T. (2021). Challenges and Solutions in Mathematics Education during the COVID-19 Pandemic. *Journal of Education in Science, Environment and Health (JESEH)*, 7 (2), 174-181.
- [5] Harandi, S. R., Rahmani, A., & Mahmodi, F. (2021). Challenges of Online to In-Person Transition in Mathematics Education During the COVID-19 Pandemic. *Journal of Education and Practice*, 12 (9), 118-126.
- [6] Ge, X., & Land, S. M. (2020). Synchronous and Asynchronous Online Teaching in a Postsecondary Mathematics Course: A Comparative Case Study. *Journal of Educational Computing Research*, 57 (7), 1609-1634.
- [7] Chua, K. H., Tan, T. K., & Wong, Y. L. (2020). Learning Mathematics in the Midst of a Pandemic: Students' Perception of Online Learning in Mathematics. *International Journal of Emerging Technologies in Learning (iJET)*, 15 (15), 107-122.

- [8] Özden, M. Y., & Çimen, O. (2020). The Transition from Face-to-Face to Online Education in Mathematics Teaching during the COVID-19 Pandemic: A Case Study. *International Journal of Technology in Education and Science (IJTES)*, 4 (3), 274-284.
- [9] Chang, C. Y., & Hsu, W. H. (2021). Exploring the Effectiveness of an Online Interactive Mathematics Learning System in a Face-to-Face Classroom. *Journal of Educational Technology & Society*, 24 (1), 105-117.
- [10] Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. *Handbook of self-regulation*, 451-502.
- [11] Marzano, R. J. (2017). *The New Art and Science of Teaching*. Solution Tree Press.
- [12] Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum Press.
- [13] Swan, K. (2016). *Online learning research and practice: Key challenges and implications*. Boulder, CO: EDUCAUSE.
- [14] Darabi, A., & Jin, L. (2013). Examining the effectiveness of instructional strategies for online course and identifying their influence on student characteristics. *International Journal of Instructional Technology and Distance Learning*, 10 (2), 49-62.
- [15] Moore, M. G., & Kearsley, G. (2012). *Distance education: A systems view of online learning*. Cengage Learning.
- [16] Villanca, A. A. (2016) Pupils Learning Styles: Basis For An Enhanced Teachers' Differentiated Instructional Plan In English, *Lamdag*, Volume 7 No. 1.