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# Preliminary Exploration on the Dimensions of Digital Learning Agility Among Teachers in Malaysia

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**Abstract:** To better understand the dimensions of digital learning agility among teachers, a qualitative study was carried out by analyzing semi-structured interviews with three in-service teachers from Selangor, Malaysia. By thematic analysis, this preliminary study has revealed nine dimensions that shapes the Malaysian teachers' digital learning agility including *speed, flexibility, experimenting, performance risk-taking, interpersonal risk-taking, information gathering, collaborating, feedback seeking, and reflecting*. Overall, this study shed insights to the existing body of knowledge of learning enablers that might assist in shaping teachers' digital learning agility.

**Keywords:** teachers, learning agility, digital technology, online learning

## 1. Introduction

Learning agility has been extensively discussed in the organizational agility to assure successful and effective performance (Derue et al., 2012; Lombardo & Eichinger, 2000; Williams & Nowack, 2022). They emphasized the importance of learning from experience and the significance of learning agility in predicting success in unfamiliar and challenging situations. The theoretical foundation of learning agility can be tracked back to experiential learning theories proposed by Kolb and Mezirow, which emphasize the importance of reflection on experiences as a means of learning (Lee & Song, 2020). This reflective practice is crucial for teachers as they navigate the complexities of integrating digital technologies into their teaching. Learning agility enables teachers to embrace changes and engage in continuous professional development, which essential adapting to the demands of educational environment (Handayani & Ambara, 2023).

Moreover, a significant transformation have necessitated teachers to become more agile in practices. One of the key drivers of this change has been the rapid advancement of technology (Foina, 2024). The impact of technology on education has created a coexistence that poses challenges to teachers, requiring them to adapt to new ways of teaching and learning. Additionally, schools closure during the Covid-19 pandemic has accelerated the need for educational institutions to develop new strategies to address the lost learning opportunities and to adapt to new teaching modes once schools reopen (Tadesse & Muluye, 2020). During this time, teachers in Malaysia are facing challenges to utilized to timely manner during teaching and learning sessions. It is due to lack of digital readiness while adjusting to technology-based teaching methods (Alakrash & Razak, 2022). However, it is proven that agile teachers able to effectively address these difficulties by promptly adjusting their approach to accommodate changes, particularly those brought about by technology advancement (Susanto et al., 2024).

Learning agility plays a crucial role in teachers' professional development. According to Meuse and Kenneth (2017), understanding learning agility can inform leadership selection and development efforts within educational organizations. Therefore, in efforts to explore the dimensions of learning agility among teachers, this study could potentially benefit the teachers in fostering the usage of digital technologies in teaching and learning. Learning agility is outlined by four learning enablers, namely innovating, performing, reflecting, and risking (Mitchinson & Morris, 2014). Meanwhile, according to Burke and Smith (2018), learning agility outlined nine behavioral characteristics, namely flexibility, speed, experimenting, performance risk-taking, interpersonal risk-taking, collaborating, information gathering, feedback seeking, and reflecting. Some of these variables overlap with those proposed by Mitchinson and Morris (2014). Borrowing Burke and Smith's (2018) study, this research aimed to explore the dimensions of learning agility among teachers specifically in their utilization of digital technologies. The purpose of this study was to address the following question: *What are the teachers' experience in using digital tools that contributes to the dimensions of digital learning agility?*

## 2. Methodology

In order to get comprehensive and extensive information, as well as examine the connections between different pieces of information (Creswell & Poth, 2016), qualitative research was undertaken. This study utilised a case study approach, which involved conducting semi-structured interviews. Case studies allow researchers to delve deeply into intricacies of a particular experience; providing rich, contextualized data, and support the development of practical recommendations (Tight, 2014).

This study served as a foundation for the actual study conducted on the development of a digital agility framework for teachers in Malaysia. This preliminary study has recently revealed the initial findings about the elements of digital learning agility. The results were derived by exploring teachers' experience with digital technologies in online teaching and learning.

This study was carried out among three public primary school teachers in Malaysia using a purposive sampling method. The respondents were selected based on their diverse demographic backgrounds, including factors such as years of teaching experience and academic level. In order to safeguard the identities of the respondents and facilitate the presentation of data, the respondents were assigned anonymous labels, namely P1-P3. After gaining ethical approval from the Malaysian Ministry of Education and participants' consent, data collection began with online semi-structured individual interviews conducted via Google Meet. Each interview lasted about 50 to 80 minutes. The audio recordings were transcribed and securely preserved. Findings from this study were thematized (Braun & Clarke, 2006) involving classifying and recognizing themes connected to dimensions that shape teachers' digital learning agility.

## 3. Results and Discussion

The qualitative inquiry of this study delved into intricacies of the teachers; digital learning agility and the dimensions shaping the integration of digital technologies in education. Through thematic analysis, nine main themes emerged, shedding light on various aspects of this transformative journey. Table 1 below presents the themes and sub-themes derived from the data analysis.

Table 1. Themes Summary from the Qualitative Data

No.	Themes	Sub-Themes
1	Flexibility	1.1 Adaptive professional development 1.2 Student-centred adaptability 1.3 Teachers self-directed learning 1.4 Versatile teaching techniques

2	Speed	2.1	Rapid response to technological changes
		2.2	Immediate action for classroom tech challenges
		2.3	Quick problem solving
3	Experimenting	3.1	Testing for convenience teaching tools
		3.2	Exploring new technologies for better learning
4	Performance Risk-Taking	4.1	Embracing hard assignments
		4.2	Courage to fail and learn
		4.3	Acquire knowledge by taking risks
5	Interpersonal Risk-Taking	5.1	Reach out for guidance
		5.2	Sharing perspectives in finding solutions
6	Collaborating	6.1	Collaborative synergy in task management
		6.2	Streamlining tasks through teamwork
		6.3	Expanding perspectives in problem-solving
7	Information Gathering	7.1	Strategic planning for digital tools integration
		7.2	Expanding digital pedagogical knowledge
		7.3	Learning tools for active students engagement
		7.4	Trendspotting in digital education
8	Feedback Seeking	8.1	Boosting morale with feedback
		8.2	Collecting diverse inputs for better online teaching
		8.3	Utilising feedback to understand digital teaching difficulties
9	Reflecting	9.1	Self-assessment on strengths and weaknesses in teaching
		9.2	Recognizing areas of improvement
		9.3	Incorporating students' perspectives

The preliminary findings highlighted the teachers' experience in online teaching and their attitudes towards technological usage that shape digital learning agility. The nine themes supported previous research on learning agility framework (Burke & Smith, 2018), which indicates that learning agility are developed through behavioral characteristics. The ability to learn from experiences, adapt quickly, and apply lessons learned to new situations are key aspects of learning agility. These findings are incongruent with studies that identified learning agility as a meta competency that integrates various behavioral elements to enhance adaptability and performance (Handayani & Ambara, 2023; Wasistha et al., 2023). Generally, the preliminary findings shows that learning agility is a crucial among teachers as it empowers them to continuously improves their teaching practices and overcome challenges in their work field.

#### 4. Conclusion

In conclusion, this initial investigation has contributed to the existing knowledge about teachers digital learning agility that is consist of key dimensions, namely speed, flexibility, experimenting, performance risk-taking, interpersonal risk-taking, information gathering, collaborating, feedback seeking, and reflecting. These dimensions provide a foundational understanding of what constitutes digital learning agility among teachers. These findings offer a comprehensive framework that can benefit teachers training programs in enhancing and supporting digital adaptability of both pre-service and in-service teachers. By incorporating these elements, it is hoped that teachers would be equipped with the competences necessary to navigate an increasingly digital learning environment.

Nevertheless, incorporating these dimensions into existing programs may present challenges. This encompasses the need of adequate resources, ensuring alignment with current educational policies, addressing varying level of literacy among teachers. Thoughtful consideration and strategic planning will be essential to overcome these barriers and fully leverage the benefits of enhanced digital learning agility among teachers.

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