TEACHER EXPECTATIONS AND LEARNERS' LEARNER CONTROL PERFORMANCE IN FLIPPED LEARNING ONLINE SESSION: A CASE STUDY

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ABSTRACT

This study investigated the influence of teacher expectations of high- and low-expectancy leaners' learner control performance in the flipped learning online session. Interviews and observations were conducted with 14 elementary learners (age 9) and four teachers from a Malaysian elementary school. Thematic analysis was used to interpret codes, generate categories, and construct themes from the data. The findings revealed that some teacher expectations narrowed the gap between the desired and actual learner control performances of various learners and some teacher expectations unintentionally widen the gap. This study suggests a reassessment of teacher expectations is needed to adjust the postpandemic flipped learning practices.

Keywords: *teacher expectations, learner control, flipped learning, elementary education*

INTRODUCTION

Digitalisation of education has become a permanent trend fed by the ongoing development of digital tools to assist teachers' and learners' digital competency. The number of classrooms utilising digital tools has risen (Major et al., 2018) and is expected to continue in the years to come (Hao et al., 2020). Consequently, the use of technology to support teaching and learning (T&L) in the classroom produces beneficial outcomes that lead to the development of 21st century skills, pedagogy, and practices (Mercer et al., 2019).

In a Malaysian context Chan le Lyn and Muthuveloo (2019) stressed the significance of Malaysia's education system to emphasise the learning approaches that prioritise technology usage. According to the use of technology in Malaysian schools, the teachers have a high level of technological integration (Raman et al., 2019; Ghavifekr & Sani, 2015). Furthermore, most Malaysian educators and learners perceive the use of technology in T&L positively (Hasin & Nasir, 2021). The worldwide COVID-19 pandemic had a significant impact on the world's educational system, and Malaysia was no exception. In light of the never-ending pandemic, the Malaysian Ministry of Education (MOE) prioritises empowering digital education and improving online T&L in schools or institutions as part of its initiative to restore the postpandemic national education system.

Online learning can encompass a number of applications, such as web-based learning and computer-based learning. In Malaysian education, online learning is increasingly prevalent; meanwhile, flipped learning is receiving greater recognition as a practical strategy for elevating learners' learning potential and creating a proactive learning environment (Rahman et al., 2019a). Conventional flipped learning includes both in-class and online learning, and the utilisation of the online flipped classroom increased during the pandemic, in which teachers used social media platforms to conduct in-class instruction virtually in conjunction with the original online flipped learning (Diningrat & Ngussa, 2022). As a result, research found unfavoured results of Malaysian elementary school learners' online learning performance, particularly their demonstration of learner control. For example, teachers' instruction

became prominent in learners' learning even though learners were at liberty to learn freely in the online learning platforms (Wasriep & Lajium, 2019), learners inclined towards distinct cues from teachers (Hashim & Shaari, 2020), and learners ritually looked for external support rather than being self-motivated or self-engaged (Zakaria & Yunus, 2020).

It was discovered that young Malaysian learners' online learning performance was poor even before the pandemic (Lee, 2019; Wasriep & Lajium, 2019). There is currently a dearth of recent studies specifically discussing young learners' postpandemic online learning issues in Malaysia. However, an emerging number of studies express concern about restoring the use of 21st century educational technology after the pandemic that the digitalised T&L demands of elementary learners' need to be further developed. For example, Nuryadin et al. (2023) indicated that elementary classroom teachers and learners still face challenges after the COVID-19 pandemic related to the utilisation of digital technology for T&L and developing independent learners. They suggested that flipped learning is the most suitable approach to overcome the current situation after the pandemic. Furthermore, Hamna & Ummah BK (2022) strongly suggested applying flipped learning in elementary school as an effective initiative to restore learners and teachers' science and technology literacy after the COVID-19 pandemic.

This study focuses on the need for action to restore the postpandemic educational system. Based on what was discovered during and before the pandemic, learners' performance in the flipped learning online session requires greater attention, and there needs to be improvements made to online learning in the Malaysian educational system for sustainable development. However, research that emphasises the flipped learning online session in relation to learner control is rare, despite learners need for autonomy or the chance to control their learning in this instructional approach (Wulandari, 2017). Furthermore, research on flipped learning in elementary school in the past five years is lacking compared to higher education (Rahman et al., 2019a; 2019b). For this reason, this study tends to fill this research gap.

The Malaysian MOE asserts that teachers' use of technology should shift responsibility for education towards the individual learner making teachers autonomous implementers of curriculum who provide diverse learners the freedom to learn at their own pace by setting their own learning goals, taking control of their own learning, and pursuing their own interests and learning needs (Othman et al., 2021). Subsequently, according to the objectives specified in the Malaysia Education Blueprint 2013–2025, the central curriculum reform initiatives incorporated 21st century skills in contemporary T&L, such as digital literacy, collaboration, problem solving, and critical thinking, that are developed around the skills, expertise, and experiences of the teachers (MOE, 2013). Teachers' readiness and perceptions of implementing instructional practices arise from their professional development in response to educational transformation. The expectations of teachers are influenced by their perceptions of the possibility for learner growth, which in turn affects learners' learning and reinforces teachers' beliefs about learners (Rosenthal & Babad, 1985). The expectations of teachers have a crucial role in today's education, especially in determining learners' learning behaviour and performance. Hence, this study looked into the performance of elementary school learners' learner control in the flipped learning online session in relation to the influence of teacher expectations, which has not previously been explored.

PURPOSE OF THE PRESENT STUDY

The purpose of this study was to investigate the influence of teacher expectations on elementary leaners' learner control performance in the flipped learning online session. Consequently, this study provides insight into how teacher expectations affect diverse learners' learner control performance in that context. This study helps to outline different teacher expectations for diverse learners, the fulfilment of diverse learners' performance vis-á-vis teacher expectations, and the adjustments that can be made to sustain the functionality of the flipped learning online session regarding learner control in the postpandemic context of Malaysian elementary education. This study was guided by the following research questions:

1. What do teachers expect from the elementary learners' learner control performance in the flipped learning online session?
2. How do elementary learners perform in relation to teacher expectations?

3. Do teacher expectations narrow or widen the gap between the desired and the actual diverse learners' learner control performance in the flipped learning online session?

LITERATURE REVIEW

The Flipped Learning Online Session

According to Zawacki-Richter and Latchem (2018), T&L can be done concurrently in and out of the classroom with web-based support and is a useful approach to ensure communication and collaboration. The flipped learning implementation increases the flexibility of role interchange between teachers and learners in both virtual and physical learning circumstances (Kozikoglu, 2019). Learners shift from a passive to active role to discover knowledge at home due to access to online resources and later share their knowledge during interactive activities in the physical classroom. The teachers' roles change from an instructor to a facilitator who occasionally participates in discussion with learners, which increases communication between teachers and learners (Tan et al., 2017).

Flipped learning is implemented frequently in elementary education, and children at this grade level have a wealth of experience with it. Ekineh & Accra-Jaja (2022) highlighted that flipped learning is an innovative teaching approach that addresses the needs of 21st century learners. Independent learning and active learning are promoted in elementary school through flipped learning, especially when adopting educational technology into T&L (Lee, 2019). The technology integration in flipped learning successfully promotes young learners' knowledge understanding, critical thinking skills, and academic achievement (Ugwuanyi, 2022). A careful selection of ICT tools for flipped learning significantly develops the student-paced learning process and creates an active and collaborative elementary classroom learning environment (Bārdule, 2021).

Flipped learning is an effective approach that successfully promotes learner-centred and active learning concepts (Yin, 2020). The online learning paradigm in the flipped learning application is the most appropriate model to promote full learner control over learning activities, which aligns with the focus of this study. The flipped learning online session is supported by asynchronous and synchronous learning (Rindaningsih et al., 2021). The Learning Management Systems (LMS) is an application that is frequently used to set up flipped learning classrooms (Louhab et al., 2020). LMSs support asynchronous online learning by providing learners with readily accessible materials or resources (Perveen, 2016). Asynchronous learning has become the most usable method for online learning because it allows learners to learn at their own pace without time constraints (Hrastinski, 2008). On the other hand, synchronous learning requires the simultaneous presence of teachers and learners to conduct real-time interaction, whereas virtual synchronous learning provides a platform for teachers and learners to interact in real time using online discussion features (Teng et al., 2012). Synchronous learning encourages learners to stay engaged in their learning due to teachers and peers' presence and instant feedback (Yamagata-Lynch, 2014).

The hybrid approach (a combination of asynchronous and synchronous learning) was distinctly displayed in flipped learning during the pandemic since it required learners to learn course content and virtually attend scheduled face-to-face meetings (Amiti, 2020). After the pandemic, flipped learning returned to the conventional approach in which physical meetings took the place of virtual meetings. Nonetheless, interaction still exists in online learning, it just takes on different patterns. Therefore, the flipped learning online session retains some of the hybrid approach in terms of accessing materials/resources and completing work on a personal schedule, receiving instant feedback on quizzes, scheduling pair/group work using proper online discussion feature when it is most convenient for everyone, and communicating with teachers if necessary (Office of Distance Education and eLearning, 2020).

Learner Control

Learner control is a similar idea as autonomy (Pemberton et al., 1996). The awareness of learner control arose in the 19th century. A. G. Butchers, the headmaster of the New Zealand Correspondence School in Wellington, stated that learning should not be designed ordinarily, each learners' learning is distinct, subject content must be structured to suit different individual learners, and learners should have the opportunity to learn independently at their own pace (as cited in Lee, 2009). Hence, learner control encompasses

learner differentiation and is a form of individualised autonomous learning that enables learners to choose and regulate the pace of instruction and time devoted to learning based on their personal learning needs (Karich et al., 2014; Landers & Reddock, 2017).

The concept of learner control utilized in young learners' educational practices originated with the pioneers of active learning. Flipped learning is one of the approaches that promotes active learning (Santos & Serpa, 2020). Maria Montessori labelled learner control as a benchmark of active learning that promotes self-discipline, self-control, and learning autonomy (Cossentino, 2010; Kirk et al., 2011; Montessori & Gutek, 2004). Loris Malaguzzi (Hewett, 2001) and Jean-Jacques Rousseau (Curtis & Boultwood, 1977) indicated that children should be given rights to be self-reliant in order to achieve the "state of freedom" (Lu, 2019). John Dewey (1937, 1938) elaborated that freedom in learning helps learners learn how to take control of their impulses and desires, which enables young learners to feel empowered to engage in learning. Steiner (1957/1996) supported the learner control notion by emphasising the significance of recognising children's individuality, intelligence, and talent at an early learning stage. Hence, Friedrich Froebel suggested that the educational system should respect children's individuality regarding their different learning rates and growing paces (Roszak, 2018).

In the 21st century, the learner control concept was incorporated with technology-enhanced learning instruction to give learners the opportunity to control "sequence, pacing, content, context, method of presentation, optional content, task difficulty, and incentives" (DeRouin et al., 2005, p. 185) according to their learning preferences. Regarding this, the investigation of learner control in the context of flipped learning is feasible because flipped learning, particularly the flipped learning online session, offers considerable potential for autonomy (Atef, 2015; Ramírez-Hernández et al., 2021). The learner control process in that context is enhanced by social interaction and the other three elements of independence, power, and support. Independence refers to the ability of learners to select their preferred method of learning from a variety of options, power is the capacity of the learners to assume ownership of their learning, and support is the resources that learners can access to accomplish their learning goals (Garrison & Baynton, 1987).

Teacher Expectations and Performance Gap

Research on how teachers form their expectations and how those expectations affect learners' performance has increased since the late 1960s (Cooper, 1983). According to Good and Brophy's (1980) detailed investigation of the Pygmalion effect produced by Rosenthal and Jacobson (1968), the diverse attitudes that teachers have towards learners are referred to as teacher expectations, and as a result, learners react differently, and their learning performance changes in accordance with the teacher expectations. Basically, the cultural factor of educational context and the teachers' prior teaching experiences with attributes are the aspects that shape their expectations (Gershenson et al., 2016). Teacher expectations are mostly influenced by learners' learning capabilities and their subsequent level of achievement or performance in meeting educational goals. Other factors such as gender, socioeconomic background, ethnicity, and learners' personal factors (e.g., behaviour) also impact teacher expectations (Soto-Ardila et al., 2022).

Consequently, teachers are more likely to categorise learners as "strong learners" or "weak learners" (Alderman, 2004) and respond differently in accordance with the classification. The formation of teacher expectations influences their instructional behaviour in four dimensions, as proposed by Rosenthal (1973):

1. Differentiate the input provided for learners: Provide more complex information to higher-expectancy learners (strong learners) but less complex information to low-expectancy learners (weak learners) to match the learner's current level of understanding (Heacox, 2012).
2. Differentiate the opportunities for learners to produce output: Assign high-level or high-quality tasks for higher-expectancy learners but assign low-level tasks for low-expectancy learners (Rubie-Davies, 2015).
3. Differentiate the feedback: Provide different amounts of feedback to high-expectancy learners and low-expectancy learners (Gentrup et al., 2020).

4. Differentiate the climate of interactions: Low-expectancy learners are given less attention and less time to engage in learning activities, whereas the teacher is more patient with high-expectancy learners to produce quality outcomes (Brophy & Good, 1970).

Learners' differentiated learning behaviour depends on the learning opportunities provided by teachers. The different expectations of teachers for different learners, however, could either narrow or widen the performance and achievement gap that already exists among learners (Rubie-Davies, 2015).

METHODOLOGY

Research Design

The aim of this study was to investigate the relationship between teacher expectations and elementary leaners' learner control performance in the flipped learning online session. The investigation required a procedure that would enable discovery. Therefore, this study employed the qualitative case study method using a descriptive approach. Merriam's (2009) qualitative case study methodology was used since it is a very appealing research design for education to gain a comprehensive and in-depth description of an experience.

Participants

A Malaysian elementary school was purposefully selected, which is actively participating in the School Transformation Program 2025 (TS25) with the support of Malaysian Collective Impact Initiative (MCII). TS25 is a program proposed by the MOE in 2015 to improve learners' success rate and schools' excellence in 21st century education (Harun & Hamzah, 2018). The selected school is actively implementing activities guided by the TS25 modules for creating a conducive learning environment, utilising digital tools and resources, redesigning students learning experiences, and so on (Ismail & Abdul Aziz, 2019; Lazarov, 2018). The school was perfectly suited for the needs of this case study because MCII is an NGO that aligns with the Malaysian national education initiative. One of the extensive programs of MCII is 21st Century Learning and Literacy Across the Curriculum delivered by RITE Education Consultancy to the schools' staff to demonstrate 21st century T&L strategies from Year 1 to Year 6 classes (https://mcii.org.my/). The selected school has been supported by MCII through administration of this program in the school by pledging full support for teachers while the teachers in the school are actively applying 21st century T&L strategies, especially cooperative and digitalised learning, in their daily lessons. Though the influences of TS25 and MCII, multimodal methods of T&L are highly encouraged in the school due to the postpandemic educational focus on 21st century skills at the basic educational level. The investigation provided a holistic insight into learner control manifestation in the broad T&L context.

Criterion sampling was used to select 14 Year 3 learners (age 9) and four Level 1 (teaching Year 1 to Year 3) teachers. Although every learner in the selected school is required to adopt 21st century T&L under the instructions of their teachers, the selected school proposed only Year 3 students to be the target group for a long-term active learning training program organised by RITE Education Consultancy due to limited manpower and space. For this reason, Year 3 learners were chosen for this study because they were the key participants that could represent a community and provide rich data. The selection criteria are shown in Table 1.

Table 1.
Participants' Selection Criteria

Teacher Participant	Learner Participant
Experiencing education transformation Trained with 21st century teaching skills More than 3 years of Level 1 English teaching experience Ready for changes and challenges Willing to participate	Experiencing education transformation Targeted learners of 21st century training programs under TS25 and MCII initiative Ready for changes and challenges Willing to participate

The required number of participants depended on when saturation was reached and the data collection process no longer provided any new or relevant data (Dworkin, 2012). The standard-based performance assessment level is a scoring system applied in Malaysian schools that evaluates

Table 2.
Learner Participants' Demographic

Participants	Gender	Performance level	Behaviour/attitude
Learner A	Female	3	Active in answering questions. Very sociable. Always finishes her work but sometimes needs teacher's guidance.
Learner B	Female	3	Takes learning seriously and can finish works by herself. Cannot pay attention when sitting still and make mistakes in her works.
Learner C	Male	3	Seldom shares opinion or answers questions. Needs teacher's guidance in learning sometimes.
Learner D	Male	3	Passive and seldom answers questions or voices opinions. Does not take initiative to learn by himself. Only finishes the work told by the teacher. Does not expect much in his learning. Does not like to memorise things or do task mechanically. Occasionally careless. Interested in doing other things that do not relate to the learning objectives. Learn at his own will.
Learner E	Male	3	Careless. Hard to pay attention in class. Passive. Low learning capability and often needs teacher's guidance.
Learner F	Male	4	Good learning attitude and clever. Able to finish his work by himself. Likes to help others, including teachers. Active and able to answer questions. Can solve his own learning problems.
Learner G	Female	4	Good learning attitude. Finishes work on time. Can solve her own learning problems. Active in giving responses or answering questions.
Learner H	Male	4	Active. Will request his learning needs. Can learn by himself. Able to share opinions or answer questions.
Learner I	Female	4	Takes her learning seriously. An introvert and seldom voices out opinions or answer questions. Can learn by herself. Follows rules.
Learner J	Male	4	Good learning attitude. Can solve her own problems. Active. She will ask the teacher when she faces problems.
Learner K	Male	5	Active. Able to voice opinions. Always asks questions when he does not understand. Can solve problems and look for answers by himself.

Note. Adapted from the sources of learners' report cards.

Participants	Gender	Performance level	Behaviour/attitude
Learner L	Female	5	Can learn at her own pace. Active and serious in learning. Follows rules.
Learner M	Female	5	Active and able to voice opinions. Can learn by herself. Sometimes her learning goal is too ambitious and she cannot achieve it.
Learner N	Female	5	Quiet and seldom voices out opinions. Her work is neat. Able to learn by herself. Sometimes forgets to accomplish her work.

Note. Adapted from the sources of learners' report cards.

leaners' prescribed level of performance on what they are expected to know, understand, and be able to do. We only selected learners who fell within the English standard-based performance assessment level range of 3 to 5 (with a maximum performance level of 6) because they represented the average group of learners. Learners who scored more than 5 may make it difficult to generalise the study's findings, and learners who scored less than 3 may have learning difficulties. The distribution of male and female learners was balanced to promote generalisability, as shown by the demographic data for learner participants in Table 2. In addition, the demographic exhibits diverse attributes in terms of learning behaviour and attitude.

Data collection

Merriam's (2009) qualitative case study methodology was employed with observations and interviews. Observation takes place in the setting where the phenomenon of interest naturally occurs, here in the flipped learning online setting. Before observing learners' flipped learning online session, I informed the participants that observations will be carried out throughout the study. This might lead to changing activities or responses because participants are aware that they are being watched. To avoid any sensitivities around this, I did not inform participants when I was taking observations or their duration. During the three-month investigation, any significant event that was likely to shed light on a research question was recorded using a free writing method rather than a checklist or form. The records included participants' actions and reactions, verbal and nonverbal expressions, classroom interactions, and contextual influences. I recorded as much information as I could until data saturation was achieved (Merriam, 2009).

After the observations, semistructured interviews with teachers and learners were conducted to cross-check the information gathered from subjective aspects. If additional information was needed, follow-up questions were posed to the participants. Participants were asked to attend audio-visual interviews scheduled for approximately 45 minutes that were conducted in participants' native languages. The interviews were recorded with interviewees' permission for later transcription and analysis. The participants were given a copy of the transcripts of their interviews to check the accuracy, address any inconsistencies, and add further comments about the study.

Data analysis

A thematic analysis was used to interpret codes, generate categories, and construct themes. It was designed to ensure interpretative validity. Initial coding was carried out concurrently with ongoing reflection, with an emphasis on ensuring that the data could address the research questions. In the first cycle of coding, In Vivo coding was employed for interview data and descriptive coding was used for data collected from observations. I then went through second cycle of coding and generated codes for descriptions via focused coding.

This study employed the code mapping technique (Saldaña, 2015) after first cycle coding (the details are shown in Table 3). Code mapping is a technique that assembles and organises the codes produced from the first cycle coding process. The first step was to list out the codes, and few similar codes were merged to produce a single code. The

next step was to categorise the codes into categories with the related codes for each category. The third step in the code mapping was to recategorise initial categories into major categories that linked to the research questions of the study.

Table 3. Code Mapping Technique

Steps	Examples (from learner participants)
List of codes	Learning from materials Learning on their own Happy with feedback Happy when success
Initial categorisation	Knowledge discovery Learning with encouragement Self-encouraging
Recategorisation	Input Knowledge discovery Feedback Learning with encouragement Self-encouraging

The focused coding employed in the second cycle coding analysis helped in finding the relationship between different categories and subcategories and, eventually, to develop themes. Central themes were identified by carefully analysing the meaning of units within the holistic context. Finally, I analysed the themes and developed a general description of the case.

Validity and Reliability

The Educational Planning and Research Division (EPDR), Ministry of Education (MOE), and District Education Department officially approved this study. Prior to the study, the principal of the school, the teacher and learner participants, and the parents or guardians (if learner participants are below 12 years old) granted their consent. The consent was obtained through email, and participants were free to contact me by email, phone, or WhatsApp for any inquiries related to this study. For ethical consideration, I provided a detailed explanation about how participants were chosen and how data were collected and analysed in order to strengthen the credibility and transferability of the results. To protect participants' personal information, I kept participants' identities anonymous when writing the study's results. The name of the selected school was also not revealed. All physical data provided by the participants were stored in a locked filing cabinet and audio files were stored on a PIN-secured hard disk.

The interview and observation protocols were validated by a group of experts who assessed the research methods and offered feedback on how well they worked. Also, a pilot study was carried out as a transferability (reliability) assessment to make sure that the information gathered from the interview and observation protocols were consistent and repeatable. The pilot study enhanced the interview questions employed to effectively address the study's issues and to minimise the risk of encountering unmanageable problems while obtaining data in the main study (De Vaus, 1993). The research approach and protocols were verified to be feasible for use in the main study after the pilot study was completed.

RESULTS

> Research Question 1: What do teachers expect from the elementary learners' learner control performance in the flipped learning online session?

Teachers' Labelling of High- and Low-expectancy Learners

This study identified key factors that significantly influenced teacher expectations for learners' learner control performance in the flipped learning online session: learners' learning capabilities and learners' personal factors. According to earlier research (Alderman, 2004; Weinstein, 2002), which is consistent with the findings of the present study, teacher expectations are most often based on their perceptions of the intelligence of learners. One of the teacher participants stated that,

> We must look at learners' learning capabilities. Based on my teaching experience, some learners are passive and have low capability to learn by themselves. I believe that they need teachers to guide them alongside. Some learners' learning capability is higher. They clearly understand the things they need to do and learn… That is why I believe that they have the ability to take control over their learning (Teacher C/Interview 01/161-204).

To elaborate further, teachers classified learners as low-expectancy learners (e.g., Learners A–E in Table 2) because they believe that those learners

would be unable to perform their learning effectively without the teacher's help and that "they will probably don't know what teacher wants from them" (Teacher B/Interview/162). Teachers, on the other hand, considered high-intelligence learners to be high-expectancy learners (e.g., Learners F–N in Table 2) because they were more conscious of their own responsibility for learning to accomplish learning goals.

According to the learner participants' demographic in Table 2, the different attributes among learners revealed a range of personal factors that influenced teacher expectations. Different rates of cognitive growth among learners determine how well they learn and have an impact on teacher expectations and responses to the learners. For example, "Some of the learners were born with learning difficulties which renders them less capable of learning; some learners can study very well…Therefore, we help these learners in their learning so that they can develop rapidly" (Teacher B/Interview/416-419). Teachers have low expectations for learners who lack self-discipline and confidence in their capability to learn, treating them as though "The learner has known from the beginning that he is incapable of completing the task. If we let him to attempt it by himself, he will be absolutely unable to succeed" (Teacher B/Interview/291-292). Zimmerman (1995) argued that this type of teacher-expectation prejudice may negatively impact teachers' perceptions of planning and conducting the steps necessary to generate particular kinds of educational performances.

The learner participants' demographic in Table 2 highlights the passive and active learner attributions. Passive learners are those who sit behind their desk, listen quietly, take notes, wait for someone to approach, and, when appropriate, respond briefly to questions asked by the teacher (Idogho, 2016). Teacher B expressed their low expectations for passive learners as if "Passive learners often sit back and wait for someone to give them something, they even barely dare to ask questions. These learners are rarely passionate to learn" (Teacher B/Interview/383-390). Despite having high levels of learning capability, introverts occasionally displayed passivity while engaging in interactive activities. Therefore, teachers labelled introverts (e.g., Learner I and Learner N in Table 2) as low-expectancy learners specifically during classroom interaction but high-expectancy learners when acquiring knowledge. For example, "This has to do with learners' personalities. Passive learner is sometimes capable of learning although being an introvert. He won't move or speak although you tell him to, but he is conscious of what he is learning" (Teacher B/Interview/255-258). On the other hand, teachers usually have high expectations for active learners, saying that, "Active learners do not need teacher to approach them and yet they are aware of 'What should I do for the next phase?'. I think these learners are more capable in learning" (Teacher B/Interview/230-232).

Teacher Expectations for Learners' Learner Control Performance

Differentiate the input provided for learners. According to the observation findings, teacher participants prepared a variety of learning materials to reinforce learners' self-learning. The learning materials distributed in the flipped learning online platform were sequentially arranged from simple to complex. This reflects the teacher participants' beliefs about children's "seriation" in cognitive development, which suggest that arranging learning materials in a systematic and ascending manner is desirable for young learners to decide their learning path according to their own learning capability (Hedegaard, 2020; Pysal et al., 2021). Teachers expected that providing learners with a range of online learning materials could "allow the learners to choose the appropriate learning materials freely in accordance with their own understanding" (Teacher C/Interview 01/108).

Differentiate the opportunities for learners to produce output. To support learners' various learning capabilities, the teacher participants offered tasks or activities that were appropriate for each learner's level of learning. They provided mandatory tasks for learners that were designed in accordance with the learners' common learning level to achieve the learning objectives of a particular lesson. Advanced exercises were also provided, which operated as nonmandatory projects or assignments that promote high-expectancy learners' motivation to expand their knowledge exploration.

Differentiate the feedback. Teacher participants created game-based quizzes to stimulate learners' spontaneous self-checking or self-correcting actions. The learning scaffold was mostly

presented within the digital games, and the personalised automation feedback enabled learners to critically reflect their learning (Altanis & Retalis, 2019). Having a self-assessment tool that monitors different learners' learning progression was a necessary precondition for supporting learners' learner control performance in the flipped learning online session because it showed the learners' distinct progress towards the learning goals, specified the goals that learners were pursuing, and automatically measured the time spent on tasks (DiCerbo, 2014).

Teacher feedback has an intimate relationship with teacher expectations. Gentrup et al. (2020) argued that high-expectancy learners receive more positive performance feedback than negative performance feedback and somewhat more performance feedback than behavioural feedback, when compared to low-expectancy learners. However, in this study, teacher participants provided more encouraging feedback to low-expectancy learners compared to high-expectancy learners. For example,

> We must keep on encourage the weaker ones even though we do not have high expectations for them … I am confident that they can learn on their own without the assistance of teachers if we give them the constant encouraging feedback (Teacher B/Interview/282-284).

On the other hand, teachers expected that high-expectancy learners would demonstrate learner control in the flipped learning online session with stronger self-efficacy and self-motivation, so that feedback such as "You did a great job!" and "You can really do it!" (Teacher B/Interview/65) were not absolutely required.

Differentiate the climate of interactions. Teacher participants adapted the online flipped environment with a high range of peer interactive and collaborative opportunities, in which every learner was expected to have an equal opportunity to engage in their learning and be free to contribute ideas. Teacher D stated that, "Learners have benefit to learn with peers. Perhaps some of them prefer to learn alone, I never consider it" (Teacher D/Interview/113-115). In that particular peer learning context, high-expectancy learners were given the role of leader, while low-expectancy learners were expected to play the role of followers and they often needed assistance from high-expectancy learners. Teacher C elaborated that, "Strong learners dominate the entire peer learning process because they usually have confidence to provide appropriate solution" (Teacher C/Interview 01/88). Strong learners serve as role models and leaders so that "weak learners will be like, 'Alright. I know how to do that now?'" (Teacher D/Interview/264).

> Research Question 2: How do elementary learners perform towards teacher expectations?

Learners can tell from an early age whether their teacher has high or low expectations by seeing how their teacher treats them (Babad & Taylor, 1992). Regarding that, diverse learners reacted differently towards teachers' distinct expectations. From the aspect of teachers' labelling of high- and low-expectancy learners, there was no significant impact on strong and active learners, yet weak or passive learners performed even more poorly, as if "I straightaway tell teacher that I don't know how to solve this kind of task … let teacher asks the smart ones to solve it" (Learner E/Interview 01/402-404). Evidently, the teacher's bias had a negative impact on weak or passive learners' perceptions of their learning capability.

On the aspect of differentiated input supplied by teachers, strong learners met teachers' high expectations by demonstrating a strong desire to discover knowledge from a variety of information-rich digital resources. Consider the following feedback given by learner participants, "I will go through all learning materials … in order to obtain more knowledge" (Learner I/Interview/182-186), and "I will refer to more learning materials even though I have finished my work … I want to check if there is anything else I can learn" (Learner J/Interview 01/168-171). On the other hand, the serial order of learning materials (simple to complex) in the flipped learning online session takes inclusive learning into consideration. The easy-to-understand materials were typically provided to assist low-expectancy learners' self-learning. Consequently, weak learners enjoyed learning from the resources that were easy to understand and knowledge had been transmitted effectively. One of the learner participants expressed that, "I learn from the interactive videos … the videos are special … they are very easy to learn" (Learner

E/Interview 02/288-289). Nonetheless, too many interactive options might lead to cognitive overload in both high- and low-expectancy learners in terms of decision-making (Hoffler & Schwartz, 2011). High-expectancy learners like Learner I said, "There are too many materials sometimes, my brain doesn't know which one to choose" (Learner I/Interview/211), and low-expectancy learners like Learner A said, "I glance at the first one and skip to the third; then, I skip to the fifth material and go back to the third; I skip to the tenth material and go back again to the fifth. There is nothing I can get" (Learner A/Interview/240).

According to the learning output produced by diverse learners, strong learners were able to attain a higher achievement in learning and provided richer learning outcomes, resulting from their learner control initiatives in the flipped learning online session. Because of the teachers' high expectations, learners were willing to invest greater effort in dealing with challenging tasks, such as "You have to think slowly if you don't know how to do the task. You will finally learn something new if you manage to solve it" (Learner I/Interview/308-313). Teacher expectations even raised high-expectancy learners' confidence to demonstrate their learning abilities by requesting "some of the tasks should be more difficult" (Learner N/Interview 02/268) and "I want to attempt something more challenging, something that other people can't do" (Learner M/Interview/592-596). Nevertheless, learners' self-expectation was sometimes too ambitious, and they often overestimated their learning capability. It occurred in situations like, "I thought I could accomplish something more difficult, but whenever I am doing something difficult, I feel like I want to do something easier" (Learner M/Interview/577-583).

Although weak learners often get lower expectations from teachers, the low-expectancy learners still committed to their learning tasks with the appropriate difficulty level. Learner A stated that, "I don't know how to do the difficult tasks and advanced assignments … but I am able to manage the normal tasks" (Leaner A/Interview/405-408). In fact, fair expectations and appropriate task difficulty levels encouraged diverse learners to learn at their own pace (Westlin et al., 2019). However, teachers' low expectations unwittingly reduced learners' self-efficacy to challenge themselves. Learner E said, "I made some effort to do the simple task ... I then wait for answers to the challenging tasks … I am not sure how to properly solve it ... If someone tells me the answer later, I can immediately write it down" (Learner E/Interview 01/402-428). Regarding this, low-expectancy learners would only learn in accordance with teacher expectations by devoting their efforts solely to the tasks or assignments that teachers expected them to accomplish. These learners eventually remained in their comfort zone, and neither regressed nor moved forward.

Teachers in this study personalised their feedback to suit the individual learner needs in order to encourage learners' self-efficacy, autonomy, and motivation. Learner participants were shown to be highly engaged in doing quizzes for self-checking and self-correcting, as illustrated by Villanyi et al. (2018) that today's elementary learners have a great awareness and dedication to self-assessing. The autonomised feedback generated from the game-based quizzes successfully increased learners' motivation to demonstrate learner control ability in the flipped learning online session, and it significantly improved weak learners' learning performance. Learner C said, "The quizzes help me to learn and complete tasks independently" (Learner C/Interview/159). In addition, the automated feedback also encouraged learners' awareness of their own potential for progress. For instance, "The quiz will notify me the part I did wrong … I will keep attempting it till I get it right" (Learner E/Interview 01/500-502).

In terms of teachers' verbal feedback, learners perceived teachers' feedback to be essential in determining their motivation to learn. Learner C stated that, "I like to approach teacher because teacher would probably say 'You are awesome', which I believe I have accomplished what teacher expects me to do" (Learner C/Interview/118). Based on Learner C's assertion, the teacher's encouraging feedback prompts low-expectancy learners' learning motivation to fulfil the teacher expectations. Consequently, the low-expectancy learners displayed high reliance on the teacher's feedback and expressed sadness or showed low self-efficacy when they did not meet their teacher's expectations. Learner A expressed that,

> I need someone to give me constructive feedback or else I will give up my learning

> easily … I sometimes can't do it properly even though someone gives me a push. I am bad, I am not good, I can't do anything right (Learner A/Interview/485-490).

Even Learner E expressed anxiety about receiving negative feedback when teacher expectations were not met, "I am scared if I answer wrongly … I am scared if I don't know how to learn properly … Won't teacher say something bad to you if you do it wrongly?" (Learner E/Interview 01/195-200).

Teachers often have high expectations that strong learners would not require explicit feedback from teachers because these learners are typically intrinsically motivated learners (Baron & Byrne, 2000). Indeed, strong learners indicated that, "It is not necessary to receive feedback from teachers as long as I can do the work by myself appropriately … Self-success is more important" (Learner H/Interview/414). However, in some circumstances, strong learners still look forward to teachers' feedback to sustain their learner control performance. Learner H expressed, "I don't mind if my teacher does not provide me with encouraging feedback, but I will be happier if she does" (Jerry/Interview/410). In short, elementary learners, regardless diversity, favourably perceived encouraging feedback (Sewagegn & Dessie, 2020).

The teacher participants alluded to Vygotsky's (1978) scaffolding concept in creating an online interactive space for the learners' flipped learning, demonstrating that scaffolding is a theory that focuses on a leaner's ability to learn with the help of a more capable learner. Consequently, high-expectancy learners showed a strong desire to support weak learners' learning motivation and preserve constructive peer learning, such as "I am the one who encourage them. I tell them to keep up their effort when they make mistakes" (Learner J/Interview 01/388). In turn, weak learners received support that enhanced their learner control ability in the flipped learning online session, "I ask a friend to show me the proper way to learn ... He shows me the way. I finally understand how to learn on my own" (Learner E/Interview 01/226-238). In essence, both strong and weak learners complement and support one another in different ways. Weak learners become more engaged and committed to their learning with the help of peers, and strong learners strengthen their knowledge through knowledge transfer and sharing as well as reinforcing their self-confidence regarding teachers' expectations. Due to teachers' low expectations, low-expectancy learners somehow have low self-efficacy. Compared to strong learners, low-expectancy learners believe that "other people's learning capability is stronger than me" (Learner A/Interview/327-328). They understood that they were a group of "left behind learners" in that particular learning environment, such as "I am the only one learning alone ... My friends are discussing, they often approach to the strong learners and discuss with them … I do not dare to join the discussion" (Learner E/Interview 01/511-531).

Meanwhile, due to the teachers' high expectations for strong learners, high-expectancy learners led peer discussions with a high degree of confidence, which occasionally marginalised weak learners. This situation demonstrates that teachers' expectations could have some influence on learners' peer expectations of low-expectancy learners. For instance,

> Some of my friends can contribute to the discussion, but some (making an "I don't think so" face) are not really helpful … They often say, "I don't know the answers," "Don't ask me," "Ask the smart kid" … I prefer to discuss with the smart kid (Learner M/Interview/355-369).

Considering the involvement of introverts in online peer discussions, they were low-expectancy learners in that context, as if "When I conduct the online learning, I learn alone…I look at other people's discussion… I don't feel like want to join the discussion although it is rather necessary" (Learner I/Interview/265-349). They remained passive despite having strong capability in learning, in accordance with teacher expectations.

> Research Question 3: Do teacher expectations narrow or widen the gap between the desired and the actual diverse learners' learner control performance in the flipped learning online session?

Teachers impose different expectations for diverse learners, and it inevitably has an impact on learners' self-concept and motivation to meet or exceed teacher expectations (Sun, 2021). Based on Table 4, teacher expectations have been fulfilled in certain dimensions by the learner participants,

Table 4.
Teacher Expectations Impact

Teacher expectations	High-expectancy learners		Gap of desired performance among diverse learners	Low-expectancy learners	
	Expectations fulfilment	Perform towards expectations		Expectations fulfilment	Perform towards expectations
Expectancy labelling					
High-expectancy learners: high-intelligence, active Low-expectancy learners: low-intelligence, passive	Fulfilled	High commitment	<WIDEN>	Fulfilled	Low commitment
Differentiate the input provided for learners					
High-expectancy learners: require complex resources Low-expectancy learners: require simple resources	Fulfilled	Active knowledge discovery	>NARROW<	Fulfilled	Successful knowledge transmission
Differentiate the opportunities for learners to produce output					
High-expectancy learners: require advanced exercises Low-expectancy learners: require mandatory tasks	Fulfilled	Raised confidence to confront challenges	<WIDEN>	Fulfilled	Low self-efficacy to confront challenges
	Unfulfilled	Overestimated one's learning capability	<WIDEN>	Fulfilled	Learn in accordance with expectations (neither regressing nor moving forward)
Differentiate the feedback					
High- & low-expectancy learners: require personalised automation feedback	Fulfilled	Benefit from self-assessing	>NARROW<	Fulfilled	Benefit from self-assessing
High-expectancy learners: require less encouraging feedback Low-expectancy learners: require more encouraging feedback	Fulfilled	Self-encouraging and intrinsically motivated	>NARROW<	Fulfilled	Feedback prompted learning motivation
	Unfulfilled	Look forward to feedback to sustain learning performance	<WIDEN>	Fulfilled	High reliance on teachers' feedback; learning was retarded in the absence of feedback
Differentiate the climate of interactions					
High-expectancy learners: leader with high self-efficacy Low-expectancy learners: follower with low self-efficacy	Fulfilled	Support weak leaners	>NARROW<	Fulfilled	Received support from strong learners
	Fulfilled	High confidence to contribute and marginalised weak learners	<WIDEN>	Fulfilled	Low confidence to contribute and left behind
	Fulfilled	Active learners join discussions	<WIDEN>	Fulfilled	Passive (introvert) learners observe other people's discussion

regarding their learner control performance in the flipped learning online session. At the same time, the teacher expectations in terms of learners' learning capabilities and personal factors have varying effects on diverse learners. The performance of learners may improve when teachers have high expectations for them and vice versa; yet learners may also perceive those expectations differently. The arguments show that there is a necessity to rethink the intent of teacher expectations corresponding to future flipped learning development, especially to restore the postpandemic educational practices. Furthermore, the gap between the desired diverse learners' learner control performance in the flipped learning online session and the actual outcome should be addressed to adjust the feasibility of existing teacher expectations.

DISCUSSION

The results of this study show that teachers need to refrain from developing different expectations for diverse learners to foster a supportive online flipped learning environment. To close the gap of desired and actual performance among diverse learners, teachers can convey expectations for success by not marginalising learners of less capability or passive learners. First, all learners should be given equally challenging tasks. Further support can be given only if requested by learners or based on necessity, regardless of learning capacity. Generalised curricular activities might also be beneficial in this circumstance. Second, teachers should refrain from behaviour like assigning important roles only to high-expectancy learners, expecting poor involvement of low-expectancy learners, having less interaction with weak learners, or making social comparisons between high- and low-expectancy learners. Learners' accountability or sense of responsibility to perform a certain role in learning can be enhanced if teachers avoid behaving in such a biased manner. Also, teachers should be aware that the interplay between intrinsic and extrinsic motivation have the capacity to improve learners' learning performance (Zhou et al., 2021). Constructive feedback should be given to each learner based on the effort they put into their work, and teachers should refrain from criticising learners, especially those with low expectations. This can enforce instructional fairness, prevent learners from comparing one another, and foster learners' self-efficacy to appreciate their own learning endeavour.

CONCLUSION

This study examines different impacts of teacher expectations on elementary learners' learner control performance in the flipped learning online session in the postpandemic educational context. According to Sun (2021), elementary learners are more likely to be affected by teacher expectations, since learners at this age level have a basic mental structure in which all instruction or rules communicated by the teachers should be followed (McLeod, 2024). According to the research findings, some of the teacher expectations successfully narrowed the gap between the desired and actual learner control performances of varied learners; however, some teacher expectations unintentionally widen the gap, which is often overlooked by the teachers. Moreover, teacher expectations sometimes did not meet learners' learning needs, or learners were unable to fulfil teacher expectations, which hindered the teachers' ability to create appropriately perceived learning goals for the learners. The present study's findings can be used to adjust and improve the current condition of flipped learning in Malaysian elementary schools by considering the appropriateness of teacher expectations in raising learners' learner control potential. Even though this study offers a useful reference for the impact of existing teacher expectations on current learners' learner control performance in the flipped learning online session, learners' behaviour, attitudes, or performance may change over time. From this study, teachers or instruction designers can further reflect on reassessing their expectations by investigating and comparing learners' flipped learning perspectives, learning needs, and performance during, before, and after the pandemic. This can assist future initiatives by eliminating unreasonable expectations and adjusting accurate expectations. In addition, since teachers' expectations highly influence learners' learning performances, initiatives should be taken to enhance teachers' awareness and knowledge of this issue. Administrators or professional training agencies are recommended to provide practical training support for the teachers.

References

Alderman, M. K. (2004). Motivation for achievement: Possibilities for teaching and learning. Lawrence Erlbaum.

Altanis, I., & Retalis, S. (2019). A multifaceted students' performance assessment framework for motion-based game-making projects with Scratch. Educational Media International, 56(3), 201–217. https://doi.org/10.1080/09523987.2019.1669876

Amiti, F. (2020). Synchronous and asynchronous e-learning. European Journal of Open Education and E-learning Studies, 5(2), 60–70. https://dx.doi.org/10.46827/ejoe.v5i2.3313

Atef, A. (2015). Flipped learning: The gateway to learner autonomy. In Proceedings of the European Distance and E-Learning Network 2015 Annual Conference (pp. 474–482). Barcelona.

Babad, E., & Taylor, P. J. (1992). Transparency of teacher expectancies across language, cultural boundaries. The Journal of Educational Research, 86, 120–125. https://doi.org/10.1080/00220671.1992.9941148

Bārdule, K. (2021). E-learning tools for the flipped learning in elementary school. Baltic Journal of Modern Computing, 9(4), 453–465. https://doi.org/10.22364/bjmc.2021.9.4.05

Baron, R. A., & Byrne, D. R. (2000). Social Psychology (9th ed.). Allyn & Bacon.

Brophy, J. E., & Good, T. L. (1970). Teacher communication of differential expectations for children's classroom performance: Some behavioral data. Journal of Educational Psychology, 61(5), 365–374. https://doi.org/10.1037/h0029908

Chan le Lyn, J., & Muthuveloo, R. (2019). Investigating technology and organizational performance of private higher learning institutions in Malaysia. The International Journal of Information and Learning Technology, 36(5), 453–466. https://doi.org/10.1108/IJILT-02-2019-0015

Cooper, H. M. (1983, August 26–30). A historical overview of teacher expectation effects [Paper presentation]. 91st Annual Convention of the American Psychological Association, Anaheim, California.

Cossentino, J. (2010). Following all the children: Early intervention and Montessori. Montessori Life, 1(8), 1–8. https://www.public-montessori.org/wp-content/uploads/2016/10/Following-All-the-Children-Early-Intervention-and-Montessori.pdf

Curtis, S. J., & Boultwood, M. E. A. (1977). A short history of educational ideas. University Tutorial Press.

DeRouin, R. E., Fritzsche, B. A., & Salas, E. (2005). Learner control and workplace e-learning: Design, person, and organizational issues. Research in Personnel and Human Resources Management, 24, 181–214. http://dx.doi.org/10.1016/S0742-7301(05)24005-7

De Vaus, D. A. (1993). Surveys in social research (3rd ed.). UCL Press.

Dewey, J. (1937). Education and social change. Bulletin of the American Association of University Professors, 23(6), 472–474. https://doi.org/10.2307/40219908

Dewey, J. (1938). Experience and education. Kappa Delta Pi.

DiCerbo, K. E. (2014). Game-based assessment of persistence. Educational Technology & Society, 17(1), 17–28. https://www.jstor.org/stable/jeductechsoci.17.1.17

Diningrat, S. W. M., & Ngussa, B. M. (2022). Effect of online flipped classroom on students' self-directed learning: A case of some universities in Indonesia. Journal of Educators Online, 19(3), 42–56. https://www.thejeo.com/archive/2022_19_3/diningrat__ngussa

Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. Archives of Sexual Behavior, 41(6), 1319–1320. http://dx.doi.org/10.1007/s10508-012-0016-6

Ekineh, D. R., & Accra-Jaja, F. (2022). Flipped learning as an innovative teaching model in the 21st century. Faculty of Natural and Applied Science Journal of Mathematics and Science Education, 3(2), 11–19. https://www.fnasjournals.com/index.php/FNAS-JMSE/article/view/52

Garrison, D. R., & Baynton, M. (1987). Concepts: Beyond independent in distance education: The concept of control. American Journal of Distance Education, 1(3), 3–15. https://doi.org/10.1080/08923648709526593

Gentrup, S., Lorenz, G., Kristen, C., & Kogan, I. (2020). Self-fulfilling prophecies in the classroom: Teacher expectations, teacher feedback and student achievement. Learning and Instruction, 66, 101296. https://doi.org/10.1016/j.learninstruc.2019.101296

Gershenson, S., Holt, S. B., & Papageorge, N. W. (2016). Who believes in me? The effect of student-teacher demographic match on teacher expectations. Economics of Education Review, 52, 209–224. https://doi.org/10.1016/j.econedurev.2016.03.002

Ghavifekr, S., & Sani, I. M. (2015). Effectiveness of ICT integration in Malaysian schools: A quantitative analysis. International Research Journal for Quality in Education, 2(8), 1–12.

Good, T., & Brophy, J. (1980). Educational psychology: A realistic approach (2nd ed.). Holt.

Hamna, H., & Ummah BK, M. K. (2022). Science literacy in elementary school: A comparative study of flipped learning and hybrid learning models. Profesi Pendidikan Dasar, 9(2), 132–147. http://dx.doi.org/10.23917/ppd.v9i2.19667

Hao, T., Chen, X., & Song, Y. (2020). A topic-based bibliometric analysis of two decades of research on the application of technology in classroom dialog. Journal of Educational

Computing Research, 58(7), 1311–1341. https://doi.org/10.1177/0735633120940956

Harun, Z., & Hamzah, K. A. (2018). Program Menuju Puncak dikalangan murid sekolah rendah luar bandar. In Prosiding Konvensyen Kebangsaan 2018 Program Transformasi Sekolah 2025 (pp.11–15). University Kebangsaan Malaysia.

Hashim, N. A., & Shaari, N. D. (2020). Malaysian teachers' perception and challenges towards the implementation of flipped learning approach. Asian People Journal, 3(2), 62–76. https://doi.org/10.37231/apj.2020.3.2.196

Hasin, I., & Nasir, M. K. M. (2021). The effectiveness of the use of information and communication technology (ICT) in rural secondary school in Malaysia. Journal of Education and e-Learning Research, 8(1), 59–64. https://doi.org/10.20448/journal.509.2021.81.59.64

Heacox, D. (2012). Differentiating instruction in the regular classroom: How to reach and teach all learners. Free Spirit Publishing Inc.

Hedegaard, M. (2020). Ascending from the abstract to the concrete in school teaching—The double move between theoretical concepts and children's concepts. Psychological Science and Education, 25(5), 44–57. https://doi.org/10.17759/pse.2020250504

Hewett, V. M. (2001). Examining the Reggio Emilia approach to early childhood education. Early Childhood Education Journal, 29(2), 95–100. https://doi.org/10.1023/A:1012520828095

Hoffler, T. N., & Schwartz, R. N. (2011). Effects of pacing and cognitive style across dynamic and non-dynamic representations. Computers & Education, 57(2), 1716–1726. https://doi.org/10.1016/j.compedu.2011.03.012

Hrastinski, S. (2008, November 17). Asynchronous and synchronous e-learning. Educause Quarterly, 31(4), 51–55.

Idogho, J. A. (2016). Towards a student-centred learning in Nigerian schools: Drama-in-education and progressive pedagogy. African Journal Online, 10(1), 38–65.

Ismail, M. I. H., & Abdul Aziz, A B. (2019). TS25 school teachers' perceptions of differentiated learning in diverse ESL classrooms. Journal of Education and Social Sciences, 13(1), 95–107. https://www.jesoc.com/wp-content/uploads/2019/08/KC13_034.pdf

Karich, A. C., Burns, M. K., & Maki, K. E. (2014). Updated meta-analysis of learner control within educational technology. Review of Educational Research, 84(3), 392–410. https://doi.org/10.3102/0034654314526064

Kirk, S., Gallagher, J. J., Coleman, M. R., & Anastasiow, N. J. (2011). Educating exceptional children (13th ed.). Wadsworth Publishing.

Kozikoglu, I. (2019). Analysis of the studies concerning flipped learning model: A comparative meta-synthesis study. International Journal of Instruction, 12(1), 851–868. https://doi.org/10.29333/iji.2019.12155a

Landers, R. N., & Reddock, C. M. (2017). A meta-analytic investigation of objective learner control in web-based instruction. Journal of Business and Psychology, 32(4), 455–478. https://doi.org/10.1007/s10869-016-9452-y

Lazarov, L. (2018). Education in the 21st century—Pedagogical approaches in digital environment. 'E-teacher' information system. Eastern Academic Journal, 2(2), 13–25.

Lee, F. (2009). Learning in nowhere: Individualism in correspondence education in 1938 and 1950. History of Education Review, 38(1), 29–39. https://doi.org/10.1108/08198691200900003

Lee, S. Y. (2019). Promoting active learning and independent learning among primary school student using flipped classroom. International Journal of Education, Psychology and Counselling, 4(30), 324–341. http://www.ijepc.com/PDF/IJEPC-2019-30-05-23.pdf

Louhab, F. E., Bahnasse, A., Bensalah, F., Khiat, A., Khiat, Y., & Talea, M. (2020). Novel approach for adaptive flipped classroom based on learning management system. Education and Information Technologies, 25(2), 755–773. https://doi.org/10.1007/s10639-019-09994-0

Lu, Y. (2019). Exploring Jean-Jacques Rousseau's nature education thought from Emile. In Proceedings of the 2019 International Conference on Management, Education Technology and Economics (ICMETE 2019)(pp. 419–422). https://doi.org/10.2991/icmete-19.2019.100

Major, L., Warwick, P., Rasmussen, I., Ludvigsen, S., & Cook, V. (2018). Classroom dialogue and digital technologies: A scoping review. Education and Information Technologies, 23(5), 1995–2028. https://doi.org/10.1007/s10639-018-9701-y

McLeod, S. (2024, January 24). Jean Piaget's theory of cognitive development. Developmental Psychology. Simply Psychology. https://www.simplypsychology.org/simplypsychology.org-Jean-Piaget.pdf

Mercer, N., Hennessy, S., & Warwick, P. (2019). Dialogue, thinking together and digital technology in the classroom: Some educational implications of a continuing line of inquiry. International Journal of Educational Research, 97, 187–199. https://doi.org/10.1016/j.ijer.2017.08.007

Merriam, S. B. (2009). Qualitative research: A guide to design and implement (3rd ed.). Jossey-Bass Publishers.

Ministry of Education in Malaysia (2013). Malaysia education blueprint 2013–2025: Preschool to post-secondary education. Author. https://www.pmo.gov.my/wp-content/uploads/2019/07/Malaysia-Education-Blueprint-2013-2025.pdf

Montessori, M., & Gutek, G. L. (2004). The Montessori method: The origins of an educational innovation: Including an abridged and annotated edition of Maria Montessori's the Montessori method. Rowman & Littlefield Publisher, Inc.

Nuryadin, A., Karlimah, K., Lidinillah, D. A. M., & Apriani, I. F. (2023). Blended learning after the pandemic: The flipped classroom as an alternative learning model for elementary classrooms. Participatory Educational Research, 10(3), 209–225. https://doi.org/10.17275/per.23.52.10.3

Office of Distance Education and eLearning. (2020, June 23). What's the difference between asynchronous and synchronous learning? The Ohio State University. https://odee.osu.edu/news/2020/06/23/whats-difference-between-asynchronous-and-synchronous-learning

Othman, I. W., Topimin, S., Siti, N. B. A., & Hasan, H. (2021). Driving the development of SMES' Entrepreneurs in the era of digitalisation: From the dynamic perspectives of law enforcement in Malaysia. International Journal of Accounting, Finance and Business, 6(37), 124–143.

Pemberton, R., Li, E. S. L., Or, W. W. F., & Pierson, H. D. (Eds.) (1996). Taking control: Autonomy in language learning. Hong Kong University Press.

Perveen, A. (2016). Synchronous and asynchronous e-language learning: A case study of Virtual University of Pakistan. Open Praxis, 8(1), 21–39. https://doi.org/10.5944/openpraxis.8.1.212

Pysal, D., Abdulkadir, S. J., Shukri, S. R. M., & Alhussian, H. (2021). Classification of children's drawing strategies on touch-screen of seriation objects using a novel deep learning hybrid model. Alexandra Engineering Journal, 60(1), 115–129. https://doi.org/10.1016/j.aej.2020.06.019

Rahman, S. F. A., Yunus, M. M., & Hashim, H. (2019a). An overview of flipped learning studies in Malaysia. Arab World English Journal, 10(4), 194–203. https://dx.doi.org/10.24093/awej/vol10no4.15

Rahman, S. F. A., Yunus, M. M., & Hashim, H. (2019b). Flipped learning in Malaysia. International Journal of Innovation, Creativity and Change, 5(6), 1–13. https://www.ijicc.net/images/vol5iss6/5610_Rahman_2019_E_R.pdf

Raman, A., Thannimalai, R., & Ismail, S. N. (2019). Principals' technology leadership and its effect on teachers' technology integration in 21st century classrooms. International Journal of Instruction, 12(4), 423–442. https://doi.org/10.29333/iji.2019.12428a

Ramírez-Hernández, M., Díaz-Alva, A., & Figueroa-Moreno, G. (2021). Flipped classroom a model for autonomous learning. In A. Marroquín, J. Olivares, D. Ventura, & L. Cruz (Eds.), CIERMMI women in science TX humanities and behavioral sciences (pp. 53–65). Ecorfan.

Rindaningsih, I., Findawati, Y., Hastuti, W. D., & Fahyuni, E. F. (2021). Synchronous and asynchronous with flipped learning environment in primary school. Journal of Elementary Education, 5(1), 33–44. https://doi.org/10.22460/pej.v5i1.1883

Rosenthal, R. (1973). On the mediation of Pygmalion effects: A four factor "theory." Papua New Guinea Journal of Education, 9, 1–12.

Rosenthal, R., & Babad, E. Y. (1985). Pygmalion in the gymnasium. Educational Leadership, 43(1), 36–39.

Rosenthal, R., & Jacobson, L. (1968). Pygmalion in the classroom: Teacher expectations and pupils' intellectual development. Holt. https://doi.org/10.1007/BF02322211

Roszak, M. (2018). Friedrich Froebel's pedagogical concept within Polish pre-school education: The revival of 19th century thought in modern institutional upbringing of children. Society Register, 2(2), 149–162. https://doi.org/10.14746/sr.2018.2.2.08

Rubie-Davies, C. M. (2015). Becoming a high expectation teacher: Raising the bar. Routledge.

Saldaña, J. (2015). The coding manual for qualitative researchers (3rd ed.). Sage.

Santos, A. I., & Serpa, S. (2020). Flipped classroom for an active learning. Journal of Education and e-Learning Research, 7(2), 167–173. http://doi.org/10.20448/journal.509.2020.72.167.173

Sewagegn, A. A., & Dessie, A. A. (2020). The value of feedback in primary schools: Students' perceptions of the practice. International Journal of Learning, Teaching and Educational Research, 19(10), 338–354. https://doi.org/10.26803/ijlter.19.10.19

Soto-Ardila, L. M., Caballero-Carrasco, A., & Casas-García, L. M. (2022). Teacher expectations and students' achievement in solving elementary arithmetic problems. Heliyon, 8(5), e09447. https://doi.org/10.1016/j.heliyon.2022.e09447

Steiner, R. (1996). Interests, talents, and educating children: Nuremburg, November 14, 1910 (R. F. Lathe & N. P. Whittaker, trans.). In R. Steiner, The education of the child and early lectures on education (pp. 71–88). Anthroposophic Press. (Original lecture published 1957)

Sun, H. (2021). The influence of teacher expectation on students' achievement of different grades. In Proceedings of the 2021 4th International Conference on Humanities Education and Social Sciences, 615, (pp. 1072–1077). Atlantis Press SARL. https://doi.org/10.2991/assehr.k.211220.183

Tan, C., Yue, W. G., & Fu, Y. (2017). Effectiveness of flipped classrooms in nursing education: Systematic review and meta-analysis. Chinese Nursing Research, 4(4), 192–200. https://doi.org/10.1016/j.cnre.2017.10.006

Teng, D. C. E., Chen, N. S., Kinshuk, & Leo, T. (2012). Exploring

students' learning experience in an international online research seminar in the Synchronous Cyber Classroom. Computers & Education, 58(3), 918–930. https://doi.org/10.1016/j.compedu.2011.10.018

Ugwuanyi, C. S. (2022). Developing sound knowledge of basic science concepts in children using flipped classroom: A case of simple repeated measures. Education and Information Technologies, 27, 6353–6365. https://doi.org/10.1007/s10639-021-10850-3

Villanyi, D., Martin, R., Sonnleitner, P., Siry, C., & Fischbach, A. (2018). A tablet-computer-based tool to facilitate accurate self-assessments in third- and fourth-graders. International Journal of Emerging Technologies in Learning, 13(10), 225–251. https://doi.org/10.3991/ijet.v13i10.8876

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological process. Harvard University Press.

Wasriep, M F., & Lajium, D. A. D. (2019). 21st century learning in primary science subject via flipped classroom method—A teacher's perspective. International Journal of Recent Technology and Engineering, 8(2S9), 952–959. https://doi.org/10.35940/ijrte.B1088.0982S91

Weinstein, R. S. (2002). Reaching higher: The power of expectations in schooling. Harvard University Press. https://doi.org/10.4159/9780674045040

Westlin, J., Day, E. A., & Hughes, M. G. (2019). Learner-controlled practice difficulty and task exploration in an active-learning gaming environment. Simulation & Gaming, 50(6), 812–831. https://doi.org/10.1177/1046878119877672

Wulandari, M. (2017). Fostering learning autonomy through the implementation of flipped learning in language teaching media course. International Journal of Indonesian Education and Teaching, 1(2), 194–205. https://doi.org/10.24071/ijiet.2017.010209

Yamagata-Lynch, L. C. (2014). Blending online asynchronous and synchronous learning. The International Review of Research in Open and Distributed Learning, 15(2), 189–212. https://doi.org/10.19173/irrodl.v15i2.1778

Yin, H. (2020). Exploring the effectiveness of a flipped classroom with student teaching. e-Journal of Business Education & Scholarship of Teaching, 14(1), 66–78.

Zakaria, S., & Yunus, M. M. (2020). Flipped classroom in improving ESL primary students' tenses learning. International Journal of English Language and Literature Studies, 9(3), 151–160. https://doi.org/10.18488/journal.23.2020.93.151.160

Zawacki-Richter, O., & Latchem, C. (2018). Exploring four decades of research in Computers & Education. Computers & Education, 122(1), 136–152. https://doi.org/10.1016/j.compedu.2018.04.001

Zhou, R., Ren, F., & Tan, Y. (2021). Stimulating intrinsic and extrinsic motivation in online learning: The role of incentive design. SSRN. http://dx.doi.org/10.2139/ssrn.3326319

Zimmerman, B. J. (1995). Self-efficacy and educational development. In A. Bandura (Ed.), Self-efficacy in changing societies (pp. 202–231). Cambridge University Press. https://doi.org/10.1017/CBO9780511527692

APPENDIX—INTERVIEW QUESTIONS

Teachers' Interview Questions

1. What do you expect your students to perform in the flipped learning online session?
2. Based on your teaching experience, what kind of online learning environment supports elementary learners' learning?
3. Can you please describe the situation of your students' flipped learning?
4. What is your opinion about the performance of learners with different capabilities during flipped learning?
5. Do you think all your students are fully engaged in using online learning materials?
6. Would you say elementary learners are able to learn effectively by themselves during the flipped learning online session?
7. Do peers play a certain role in helping elementary learners' learning?
8. What is the teachers' role in elementary learners' flipped learning?
9. How often do your students need assistance or guidance?
10. What are the problems you face when letting your students learn by themselves online?
11. If you could give us one piece of advice to improve the current flipped learning implementation, what would it be?

Learners' Interview Questions

1. Please describe your happiest experience in flipped learning.
2. If the teacher says "kids, now you learn by yourself" after setting up a free online learning environment, what would you do next?
3. How do you feel when learning freely in the online learning setting?
4. The teacher gave you tasks and provided you with learning materials, how did you manage your learning?
5. Some people would say that it is difficult to choose which to learn first. How about you?
6. What did you do when you faced problems in your learning?
7. When is the time do you think you learn the best?
8. Would you say there is someone affecting your learning?
9. Do you think that you are the "good student" that the teacher often mentioned?
10. Imagine that you have successfully finished a challenging task that nobody can, but there is no praise or rewards, how do you feel about that?
11. If there is a total of five stars, how many stars will you give to yourself?
12. What do you want to fulfil in your future learning?