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Unintended Learning Behaviors Emerging Through Digital Assessment Practices among Middle School Students

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ABSTRACT

Many schools now use digital assessments as part of everyday classroom activities. Online quizzes, Google Forms, and similar digital assessment activities are commonly used in middle school classrooms. Teachers often use these tools because they make it easier to check students' understanding and provide quick feedback. However, students may experience these activities differently, and regular exposure to digital assessments may influence how they approach learning and assessment tasks. This study focused on the learning behaviors linked with those experiences. Responses were collected from 39 students in Grades VI and VII through open-ended questions shared using Google Forms. A qualitative approach was adopted, and the responses were examined through thematic analysis. Seven themes emerged from the data. Many students described rushing through assessments, guessing when they were unsure, and relying on answer choices to respond to questions. Scores, rankings, and competition also appeared frequently in their responses. Some students reported feeling pressure during assessment activities. At the same time, many participants viewed digital assessments as engaging, interactive, and motivating. They reported that quizzes and game-based activities often increased their participation and attention during lessons. The findings suggest that digital assessments influence more than students' performance on assessment tasks. They may also shape the habits, attitudes, and behaviors students develop while learning in the classroom.

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Introduction

Several schools now use digital assessments during everyday classroom activities (Redecker & Johannessen, 2013). During lessons, middle school students regularly take part in online quizzes and other digital assessment activities. Many teachers prefer these tools because they make

classroom assessment easier to manage and provide results quickly (Ningsih & Mulyono, 2019). Teachers can assess student understanding more quickly. Students are also able to see their results and feedback soon after completing the assessment (Ningsih & Mulyono, 2019; Panero & Aldon, 2016).

During classroom activities, the researcher began to notice common behaviors in digital assessments. Many students tried to finish tasks quickly. Some chose answers without reading the questions carefully, while others relied on the answer options when they were unsure. Several students seemed to care more about their scores rather than about understanding the lesson or learning from their mistakes. At first, these incidents seemed unimportant. Over time, the same behaviors continued to appear across different assessment activities. This led the researcher to wonder whether these behaviors were connected to students' regular experiences with digital assessment.

The same behaviors continued to appear during different assessment activities. This led the researcher to wonder whether assessment was doing more than measuring learning. It may also shape the habits students develop and the way they engage with learning tasks (Scott, 2020; Wormald et al., 2009). Students' experiences with assessment may influence more than their performance. Over time, these experiences can shape learning habits and affect the way students approach learning.

This study uses the term *unintended learning behaviors* to describe habits that may develop through regular participation in digital assessments. Teachers do not teach these behaviors directly. They may appear gradually as students become familiar with digital assessment activities. For example, some students may rush through tasks, guess when unsure, rely on answer choices, or focus more on scores than on understanding the lesson. With repeated exposure to these activities, such habits may become more common (Dolmans et al., 2016). Over time, such habits may impact not only assessment performance but also students' broader approaches to learning and classroom participation (Scott, 2020).

Researchers have reported several benefits of digital assessment. Students can receive feedback more quickly, and teachers often find these activities easier to manage. Some studies have also linked digital assessment with higher levels of classroom participation. (Ningsih & Mulyono, 2019; Panero & Aldon, 2016). Studies have reported several challenges linked with digital assessment, including technical problems, cheating, and distractions. At the same time, there has been limited discussion about how regular use of these assessments may affect students' learning habits. This may be especially relevant for middle school students, who are still developing study routines and academic behaviors.

Many learning habits begin to take shape during the middle school years. Students are still developing study routines and figuring out how to approach different academic tasks (Uslu & Körükcü, 2021). Students who regularly complete digital assessments may gradually become familiar with the way these activities are designed and used in the classroom (Scott, 2020; Wormald et al., 2009). Over time, these habits may become part of students' everyday learning and influence the way they approach classroom tasks (Scott, 2020).

For this reason, the present study focuses on unintended learning behaviors related to digital assessment practices among middle school students. It also studies how students describe and make sense of their experiences with digital assessment activities in the classroom.

Literature Review

The use of technology in education increased meaningfully during and after the COVID-19 pandemic. Schools became more dependent on digital tools, and digital assessment also became a regular part of classroom practice. Many middle school students in Pakistan regularly complete online quizzes, Google Forms, and other digital assessment activities during their lessons. Teachers use digital assessment tools for different reasons. They can check students' understanding without spending much time on marking, and students receive feedback quickly. Over time, these activities have become more common in classroom teaching and learning (Ningsih & Mulyono, 2019; Redecker & Johannessen, 2013).

Studies on digital assessment have reported a range of benefits. Students can receive feedback more quickly, and teachers can monitor progress more easily. Some researchers have also linked digital assessment with higher levels of classroom participation. Farid et al. (2025) found that continuous digital assessment encouraged participation and interaction among secondary school students when teachers used these activities consistently and provided guidance. Similar observations have been reported in other studies. Digital assessment is often linked with greater student engagement and involvement in classroom activities. However, there is still limited discussion of how regular use of these assessments may influence students' learning habits and classroom behavior.

Assessment is usually associated with measuring achievement, but students may learn more from assessment than teachers intend. The way assessment activities are organised can influence how students respond to classroom tasks. Digital assessments often involve answer choices, time limits, and quick scoring. As students take part in these activities again and again, certain habits may begin to develop. Although these habits are not taught directly, they can become part of students' regular learning experiences (Scott, 2020; Wormald et al., 2009).

One behavior discussed in the literature is rapid guessing (Lee & Jia, 2014). Wise and Kuhfeld (2019) described rapid guessing as answering questions without thinking about them carefully. Their study showed that some students completed items so quickly that it was difficult to assume they had engaged properly with the task. This behavior was often associated with lower motivation and a lack of interest during assessment activities. Similar results were reported by Svetina Valdivia et al. (2023) reported similar findings among students in Grades 3 to 8 during digital testing. Their study showed that some students responded with limited engagement. Taken together, these findings suggest that digital assessments may sometimes encourage students to focus on finishing tasks rather than carefully considering their answers (Wise & Kuhfeld, 2019; Bulut et al., 2023).

Some researchers have found that students may rely on shortcuts when completing low-stakes online assessments. Bulut et al. (2023) found that some students treated low-stakes assessments differently when the results had few consequences. Rather than working carefully through each question, they often looked for faster ways to complete the task. If this happens repeatedly, students may begin to view assessment as something to finish quickly instead of an opportunity

to think about their learning. Such habits may also affect participation in classroom activities over time (Wise & Kuhfeld, 2019).

Students' responses showed that digital assessments influenced more than their learning experiences. Many participants also described emotional reactions to these activities. Aldhafeeri and Alotaibi (2022) found that some middle school students felt frustrated and found it difficult to stay focused while using digital learning platforms. Repeated digital activities and unclear classroom expectations appeared to make these difficulties worse for some students. Students did not all respond in the same way. Some liked the convenience of digital platforms, while others reported stress and a tendency to avoid certain activities.

Not all students in Pakistan experience digital learning in the same way. For some, limited access to technology and resources creates additional challenges. Shahzad (2024) reported that students' experiences of digital learning in Lahore were affected by differences in access to technology and internet services. The challenges were often greater for students studying in low-cost private schools. Many had to deal with weak internet connections, limited access to devices, or sharing technology with others. Hasnat and Kabir (2024) found that many students struggled with anxiety, technical problems, low motivation, and adjustment issues during online assessments after the COVID-19 transition. Their findings suggest that students' experiences with digital assessment can affect both their emotions and their classroom participation.

The studies reviewed suggest that digital assessment can influence students in different ways. Timed quizzes, visible scores, and quick-response activities may affect how some students approach classroom tasks. In some cases, students may focus on finishing quickly or getting a good score rather than thinking carefully about the lesson content (Senko et al., 2011). Although these behaviors may appear small in everyday classroom activities, they can become more common when students experience the same types of assessments repeatedly.

Many students are still developing study habits and learning routines during the middle school years. Because of this, their experiences with assessment may have a lasting influence on the way they learn (Uslu & Körükcü, 2021). The middle school years can have a lasting influence on how students learn. The habits and experiences developed during this period may continue to shape learning in later years. Digital assessment is now used in many schools, yet there is still limited understanding of how middle school students experience these activities. Less attention has been given to the possible link between these experiences and unintended learning behaviors, particularly in contexts such as Pakistan.

Similar concerns were also noticed during classroom activities. During digital assessments, some students appeared more interested in their scores and completing tasks quickly. Others relied on answer choices or familiar answer patterns instead of thinking carefully about the lesson content. These behaviors continued to appear across different assessment activities. Over time, they seemed less like isolated incidents and more like part of students' regular experiences with digital assessment. This encouraged the researcher to explore students' experiences and examine how digital assessment may be linked with unintended learning behaviors among middle school students.

Many studies show that digital assessment has several benefits for teaching and learning, but it may also affect how students learn and respond in class. Studies have reported behaviors such as

rapid guessing, loss of interest, shortcuts, anxiety, and putting in less effort during digital assessments. However, limited attention has been paid to how middle school students experience these practices in everyday classroom settings, particularly in developing educational contexts such as Pakistan. This study explores the unintended learning behaviors that emerge from digital assessment among middle school students and examines how students experience the assessment practices that shape these behaviors.

Problem Statement

Digital assessment activities are now commonly used in middle school classrooms. Students regularly complete online quizzes, Google Forms, and other digital assessment tasks during their lessons. These activities help teachers check students' learning and provide quick results. However, regular use of digital assessment may also influence how students respond to classroom assessment activities.

In classroom practice, some students appear more interested in finishing quickly than thinking carefully about the question. Others guess answers when they are unsure, depend on answer choices, or focus mainly on scores and rankings. These behaviors may become part of students' assessment experiences over time.

The use of digital assessment is becoming more common in schools. Limited research has explored how middle school students experience these assessment activities and how these experiences may be linked to behaviors such as rushing, guessing at answers, depending on answer choices, and focusing on scores, particularly in Pakistani school settings.

This study observes the unintended learning behaviors associated with digital assessment practices among middle school students and examines students' experiences of the assessment activities linked with these behaviors.

Objectives

1. To identify unintended learning behaviors emerging through digital assessment practices among middle school students.
2. To explore students' experiences of how digital assessment practices shape these unintended learning behaviors.

Research Questions

1. What unintended learning behaviors emerge through digital assessment practices among middle school students?
2. How do students experience digital assessment practices in ways that shape these unintended learning behaviors?

Research Design and Methodology

This study used a qualitative approach to understand middle school students' experiences with digital assessment activities and the learning behaviors associated with these experiences. The

study included Grade VI and Grade VII students from private schools where digital assessment activities were regularly used during classroom learning.

A total of 39 students participated in the study. Purposive sampling was used because all participants had experience of attempting online quizzes, Google Forms, and other digital assessment activities in their classrooms.

Data were collected through a Google Form consisting of 12 open-ended questions. The questions asked students about their experiences with digital assessments, their participation during assessment activities, their learning habits, and the difficulties they faced. Students were informed about the purpose of the study and were encouraged to share their views honestly.

The responses were read several times to understand what students were saying. Similar ideas and repeated responses were highlighted and grouped together. All responses were coded manually by the researcher. Responses that shared similar meanings were placed in the same categories. These categories were then combined to develop themes that reflected students' experiences. After reviewing all responses, seven themes were identified.

In the findings section, participant numbers such as P1, P2, and P3 were used when presenting quotations from the responses.

Ethical Considerations

Participation in the study was voluntary. Students were informed about the purpose of the study before completing the questionnaire. All participants' responses were kept confidential. The information provided by students was used only for research purposes.

Data Analysis

The responses were analyzed using thematic analysis. Each response was read several times to understand students' experiences with digital assessment activities. Responses that discussed similar experiences were grouped together.

The analysis was first carried out question by question so that the findings remained connected to the questions students had answered. Similar responses across questions were then reviewed to identify patterns that appeared repeatedly in the data.

After reviewing the responses several times, the categories were organized into themes and subthemes. Representative quotations were selected to support the findings and illustrate students' experiences in their own words.

Responses that did not fit the main subthemes were considered unique responses and were reported separately where appropriate. This process helped present both commonly shared experiences and less common views expressed by participants.

Findings

This chapter presents the findings of the study. Students' responses are organized by questionnaire section. The findings are presented in two stages. First, responses to each question are presented to show how students described their experiences with digital assessment activities.

Second, similar responses are grouped through thematic analysis to identify broader themes and subthemes. Representative quotations are included to illustrate students' views and experiences.

Section 1: Students' Experiences with Digital Assessment Activities

Question 1

What types of digital assessment activities do you usually attempt in your classroom?

Students mentioned several digital assessment tools that were commonly used in their classrooms. Google Forms was mentioned by many students. Others stated to Kahoot, Quizizz, Blooket, Wayground, Google Classroom, activities, online quizzes, and computer-based tests. These responses show that students use different digital tools during classroom assessments.

One student stated, *"Google Forms"* (P4). Another student shared, *"Like Google Forms, Blooket, Wayground and others"* (P11). One participant also mentioned, *"Kahoot and Quizizz"* (P18).

The responses showed that students were familiar with different digital assessment tools and used them regularly during classroom activities.

Question 2

How do you usually feel when attempting online quizzes or computer-based tests?

Students described different feelings about online quizzes and computer-based tests. Most participants spoke positively about these assessment activities. Many students described these activities as fun, interesting, and enjoyable. Some students felt excited during digital assessment activities. A few also mentioned feeling nervous, particularly when they were unsure of their answers or encountered technical difficulties.

One student stated, *"I usually feel more excited because it's in quizzes or Blooket"* (P7). Another participant reported, *"I really feel happy while using these types of apps"* (P14). One student explained, *"I feel stressed because of the amount of problems or connectivity issues that happen"* (P16).

Many students viewed digital assessments positively and described them as enjoyable classroom activities. Several participants liked the interactive nature of online quizzes and felt motivated while taking part. However, some students also reported nervousness, stress, and concerns about technical difficulties. Not all students experienced digital assessments in the same way.

Question 3

How are digital assessments different from written classroom tests for you?

Students described several differences between digital assessments and written classroom tests. Many participants mentioned receiving results more quickly through digital assessments. Some also felt that online quizzes were more interactive and enjoyable than paper-based tests.

One student stated *"We get our results immediately"* (P21). Another participant explained, *"Digital assessments are more interactive than written tests"* (P14). A third student reported, *"They are more fun and interesting"* (P8).

Students often described digital assessments as quicker and more engaging than written tests. Many participants valued receiving immediate results, while others appreciated the interactive nature of digital activities. Feedback, interaction, and the use of technology were the differences most often mentioned.

Thematic Analysis of Section A

Questions 1, 2, and 3 explored students' experiences with digital assessment activities. Students described the tools they used, shared their feelings about digital assessments, and compared them with written classroom tests. Similar ideas appeared across many responses. These ideas were grouped into three subthemes: Digital Assessment Tools, Feelings Towards Digital Assessments, and Differences from Written Tests.

Table X: Relationship Between Questions, Theme, and Subthemes

Questions	Theme	Subthemes
Q1. Types of digital assessment activities	Students' Experiences with Digital Assessment Activities	Digital Assessment Tools
Q2. Feelings during online quizzes and computer-based tests		Feelings Towards Digital Assessments
Q3. Differences between digital and written tests		Differences from Written Tests

Note. Theme 1 and its subthemes were developed from students' responses to Questions 1, 2, and 3.

Theme 1: Students' Experiences with Digital Assessment Activities

Subtheme	Description	Representative Quote
Digital Assessment Tools	Students mentioned different digital tools used during classroom assessments.	"GCR quizzes forms."
Feelings Towards Digital Assessments	Students shared positive and negative feelings about online quizzes and computer-based tests.	"I enjoy attempting online quizzes."
Differences from Written Tests	Students explained how digital assessments differ from traditional written tests.	"We don't have to write a lot in digital assessments."

Note. Subthemes were developed from students responses about their experiences with digital assessment activities.

Students shared their experiences of digital assessment activities used in their classrooms. Many participants referred to various digital tools, including Google Forms, Kahoot, Quizizz, Blooket, Wayground, and Google Classroom, as well as activities. One participant stated "*Wayground, Kahoot, Google forms and Blooket*" (P9). Another student mentioned "*GCR, Canva, Google Docs*" (P15). These responses show that students were familiar with different digital assessment tools and used them regularly during classroom activities.

Students also shared their feelings about digital assessments. Most participants described these activities positively. One student stated *"I enjoy attempting online quizzes"* (P15). Another participant shared *"It is very fun"* (P13). Some students, however, raised concerns about stress and technical issues. For example one participant reported, *"I feel stressed because of the amount of problems or connectivity issues that happen"* (P16). These responses show that students' experiences were mostly positive, although some challenges were also reported.

Students further explained how digital assessments differ from written classroom tests. Several participants highlighted immediate feedback, less writing, and greater interaction as benefits of digital assessment activities. One student explained, *"We don't have to write a lot in digital assessments"* (P9). Another participant stated *"Digital assessments are easy than classroom tests"* (P15). These responses suggest that many students viewed digital assessments as easier and more engaging than traditional paper-based tests.

Students' responses showed that digital assessment activities were commonly used in their classrooms. Most participants were familiar with different digital tools and generally enjoyed taking part in digital assessments. They also described several ways in which digital assessments differed from written assessment activities.

Section B: Learning Behaviors During Digital Assessment

This section focuses on students' learning behaviors during digital assessment activities. Students were asked about rushing through assessments, guessing answers, focusing on scores, changes in their preparation habits, and other behaviors they noticed while completing digital assessments. Their responses provide insight into how repeated exposure to digital assessment activities may influence the way students approach assessment tasks and classroom learning.

Question 4

Have you ever tried to finish a digital assessment quickly? Why did this happen?

Many students reported that they are trying to finish a digital assessment quickly. The reasons varied from student to student. Some participants mentioned time limits and approaching deadlines, while others wanted to see their scores quickly or finish before their classmates. A few students also cited practical reasons, such as low battery, screen fatigue or a desire to complete the task and relax.

One participant stated *"Yes because I was running short on time and there were 30 questions remaining"* (P3). Another student reported, *"Yes because to get free and relax"* (P4). One participant explained *"Yes I have tried to finish a digital assessment quickly so my score can be released and I can get to know my marks"* (P18).

Several students linked rushing with time pressure. One participant stated, *"Yes I have due to the limited time given to fill the answers"* (P21), while another explained, *"Sometimes I tried to finish the digital assessment quickly because it had the timer on so I read the questions fast"* (P36). These responses show that timers and deadlines often encouraged students to work more quickly.

Some students also connected rushing with competition and performance. One participant reported, *"Yes, to get 1st position or good scores in a quiz"* (P23). Another student explained that

during Quizizz activities, they tried to finish before their classmates in order to win (P19). Students' comments showed that competition and scores were important factors for some participants during digital assessments.

Students reported a variety of reasons for trying to finish digital assessments quickly. Time limits, competition, scores, low battery, and the desire to complete the task were among the reasons mentioned most often.

Question 5

During digital assessments, do you sometimes guess answers without thinking carefully? Please explain.

Students did not all respond to guessing in the same way. Many acknowledged that they sometimes guessed answers when they were unsure, confused, or short of time. Several participants felt that multiple-choice questions made guessing easier because they could rely on the available options. A small number of students said they preferred to read questions carefully and avoided guessing whenever they could.

One participant stated *"Yes because it is a quiz and mostly there is a time limit for each question"* (P7). Another student reported, *"When the time is running out and I have no idea how to solve a question, I usually guess"* (P19). One participant explained, *"Yes because I am afraid that I will run out of time"* (P22).

Several students connected guessing with time pressure and uncertainty. Others explained that they relied on answer choices when they did not know the correct answer. These responses suggest that guessing was a common strategy for some students during digital assessments.

Question 6

Do digital assessments make you focus more on scores or completion than understanding the lesson? How?

Students shared different views about the effect of digital assessments on their learning. Some participants felt that digital assessments helped them understand lessons better. Others reported paying more attention to scores, rankings, and finishing quickly than to understanding the lesson content.

One participant stated, *"I want to know immediately how well I did in the test depending on my score"* (P18). Another student reported, *"It sometimes make me focus more on scores for position in the quizzes"* (P23). One participant explained, *"Scores because all students compare"* (P31).

Several students linked digital assessments with competition and performance. Some participants described wanting high scores or better rankings than their classmates. At the same time, other students felt that digital assessments supported their understanding of lesson concepts. These responses show that students experienced digital assessments in different ways.

Question 7

Have repeated digital assessments changed the way you prepare for classroom learning or assessment activities? In what ways?

Students described different ways in which repeated digital assessments influenced their preparation habits. Some participants reported using online quizzes, digital tools, and classroom resources more often. Others explained that they focused more on quick revision, multiple-choice questions, and digital practice activities. A few students reported little or no change in their preparation habits.

One participant stated, *"Online assessments help me prepare for my tests"* (P13). Another student reported, *"You get to know your marks immediately and it also shows the wrong and right answers"* (P18). One participant explained, *"I now focus more on practicing multiple-choice questions and quick revision instead of long written answers"* (P28).

Many students felt that repeated digital assessments had influenced the way they prepared for classroom activities. Digital practice, quick feedback, and regular exposure to online assessments were commonly mentioned in the responses.

Question 8

Have you noticed any habits in yourself during digital assessments, such as relying on answer choices, rushing, or using shortcuts? Please explain.

Students reported a range of habits that they had noticed during digital assessments. Some participants mentioned relying on answer choices when they were unsure of the correct answer. Some students linked rushing to time pressure or excitement during quizzes. A few also admitted that they looked at the answer options before reading the question carefully or relied on shortcuts to complete the task.

One participant stated, *"Rushing. Coz I am eager to know my score"* (P18). Another student reported, *"I started relying on choices and rushing"* (P22). One participant explained, *"Sometimes I rely on answer choices to help me find the correct answer"* (P26).

Several students described habits that appeared repeatedly during digital assessments. Rushing, relying on answer choices, and using shortcuts were among the most commonly reported behaviors. These responses suggest that repeated exposure to digital assessments may influence how some students approach assessment tasks.

Thematic Analysis of Section B

Responses to Questions 4, 5, 6, 7, and 8 revealed several learning behaviors associated with digital assessment activities. Students discussed rushing through assessments, guessing answers, focusing on scores, relying on answer choices, and changes in their preparation habits. When these responses were reviewed together, three themes were identified: Speed-Oriented Assessment Behavior, Guessing and Dependence on Answer Choices, and Score-Focused Participation and Competition.

Theme 2: Speed-Oriented Assessment Behavior

Table X: Relationship Between Questions, Theme, and Subthemes

Questions	Theme	Subthemes
Q1. Types of digital assessment activities	Students' Experiences with Digital Assessment Activities	Digital Assessment Tools
Q2. Feelings during online quizzes and computer-based tests		Feelings Towards Digital Assessments
Q3. Differences between digital and written tests		Differences from Written Tests

Note. Theme 1 and its subthemes were developed from students' responses to Questions 1, 2, and 3.

Theme 2: Speed-Oriented Assessment Behavior

Subtheme	Description	Representative Quote
Time Pressure	Students reported rushing because of limited time during digital assessments.	"The timer sometimes makes me rush."
Quick Completion	Students preferred finishing assessments quickly.	"I finish it quickly and then relax."
Rushing During Assessment	Students reported rushing through questions or activities.	"I sometimes rush because I want to finish first."

Note. Subthemes were developed from students' responses related to rushing and completing assessments quickly.

Findings Related to Theme 2

Students frequently described behaviors linked to speed and task completion during digital assessments. Many participants referred to time limits and countdown timers that encouraged them to work quickly. One participant explained, *"Yes, either because it was too hard or if the deadline was near"* (P16). Another student reported, *"This happened due to me taking too long, which resulted in the time almost running out"* (P34). These responses show that time pressure influenced how some students completed assessment tasks.

Students also described a preference for completing assessments quickly. Some participants wanted to finish the task and move on to other activities, while others felt encouraged to work faster during online assessments. One participant stated, *"Either because of a finish the assessment for a reward or just being lazy"* (P29). Another student mentioned that they preferred to finish quickly rather than spend extra time on questions.

Several students also reported rushing as a habit during digital assessments. One participant explained, *"Sometimes I rush because I want to know my result quickly"* (P30). Another student stated, *"When we play Blooket we want to finish before others"* (P25). These responses suggest that rushing became a common behavior for some students during digital assessment activities.

Overall, this theme shows that time limits, quick completion, and rushing were common features of students' experiences with digital assessments.

Theme 3: Guessing and Dependence on Answer Choices

Relationship Between Questions, Theme, and Subthemes

Questions	Theme	Subthemes
Q5. Do you sometimes guess answers without thinking carefully?	Guessing and Dependence on Answer Choices	Guessing When Unsure
Q8. Have you noticed habits such as relying on answer choices?		Reliance on Answer Choices
Q5 & Q8		Time-Related Guessing

Note. Theme 3 and its subthemes were developed from students' responses to Questions 5 and 8.

Theme 3: Guessing and Dependence on Answer Choices

Subtheme	Description	Representative Quote
Guessing When Unsure	Students guessed answers when they were unsure of the correct response.	"Sometimes I just choose the answer that seems right."
Reliance on Answer Choices	Students depended on answer options to help them respond.	"I look at the options to help me decide."
Time-Related Guessing	Students guessed because of limited time.	"When time is running out, I guess."

Note. Subthemes were developed from students' responses about guessing and reliance on answer choices.

Findings Related to Theme 3

Students reported that guessing sometimes occurred during digital assessments. Many participants explained that they guessed answers when they did not know the correct response or felt uncertain about a question. One participant reported, "*I guess when I do not understand the question*" (P17). Another student explained that they sometimes selected the option that looked most familiar.

Several students also described relying on answer choices. Rather than thinking through the question, some participants reported looking at the available options and choosing the answer that seemed most likely to be correct. These responses suggest that answer choices sometimes guided students' thinking during digital assessments.

Time pressure was another factor linked to guessing. One participant stated, "*When the time is running out and I have no idea how to solve a question, I usually guess*" (P19). Another student reported, "*I am afraid that I will run out of time*" (P22). These responses show that guessing was often connected to limited time and uncertainty.

Overall, this theme shows that guessing and dependence on answer choices were common experiences for some students during digital assessment activities.

Theme 4: Score-Focused Participation and Competition

Relationship Between Questions, Theme, and Subthemes

Questions	Theme	Subthemes
Q4. Have you ever tried to finish quickly?		Competition
Q6. Do digital assessments make you focus more on scores or completion?	Score-Focused	Score Orientation
Q6 & Q8	Participation and Competition	Immediate Results

Note. Theme 4 and its subthemes were developed from students' responses to Questions 4, 6, and 8.

Theme 4: Score-Focused Participation and Competition

Subtheme	Description	Representative Quote
Competition	Students compared their performance with classmates.	"I want to finish before others."
Score Orientation	Students focused on marks and rankings.	"I want a good score."
Immediate Results	Students wanted to see results quickly.	"I want to know my score immediately."

Note. Subthemes were developed from students' responses related to scores and competition.

Findings Related to Theme 4

Students frequently connected digital assessments with scores and competition. Many participants reported wanting high marks or better positions than their classmates. One participant stated, "Yes, to get 1st position or good scores in a quiz" (P23). Another student explained that they focused on performing better than other students on online quizzes.

Students also described paying close attention to their scores. One participant reported, "I want to know immediately how well I did in the test depending on my score" (P18). Another student stated, "Scores because all students compare" (P31). These responses suggest that scores played an important role in students' assessment experiences.

Several students also referred to immediate results. Digital assessments often allowed participants to see their scores quickly, which encouraged some students to focus on performance outcomes. These responses show that scores, rankings, and competition influenced how some students approached digital assessment activities.

Overall, this theme shows that digital assessments encouraged a strong focus on scores and competition among some students. Immediate feedback and classroom comparisons appeared to shape students' participation during assessment activities.

Section C: Classroom Participation and Challenges

Students were asked about the effect of digital assessments on their classroom participation and the challenges they experienced while completing assessment activities. Their responses described both positive and negative experiences. Some students reported paying closer attention

and participating more actively during lessons, while others reported difficulties, including internet issues, time pressure, and concerns about their performance.

Question 9

Do digital assessments affect your attention or participation during lessons? How?

Students reported differing views on the effects of digital assessments on their attention and participation during lessons. Many participants explained that digital assessments encouraged them to pay closer attention because quizzes could occur at any point during a lesson. Others reported participating more actively in classroom activities when digital assessments were involved. A few students, however, felt that digital assessments had little effect on their participation.

One participant stated, *"I pay more attention because I know there might be a quiz"* (P5). Another student reported, *"I participate more because I want to do well in the assessment"* (P12). One participant explained, *"It makes lessons more interesting and keeps me focused"* (P19).

Many students reported increased attention during lessons when using digital assessments. Several participants explained that they listened more carefully and participated more actively when they expected an online quiz or assessment activity. These responses suggest that digital assessments encouraged greater involvement in classroom learning for many students.

Question 10

What difficulties, pressure, or stress do you experience during digital assessments?

Students described several challenges that they experienced during digital assessments. Internet problems were mentioned by many participants. Others referred to time limits, concerns about scores, and uncertainty about whether their answers were correct. These issues often created pressure during assessment activities.

One participant stated, *"If the internet is slow"* (P5). Another student reported, *"I sometimes experience pressure because of the time limit"* (P12). One participant explained, *"I worry when I do not know whether my answer is correct"* (P22).

Several students described technical difficulties as a source of frustration during digital assessments. Others reported feeling pressure because of limited time or concerns about their performance. These responses show that students experienced both technical and emotional challenges while completing digital assessments.

Thematic Analysis

Responses to Questions 9 and 10 indicated that digital assessments influenced students' classroom experiences in different ways. Some students reported greater attention and participation during lessons, while others described challenges related to internet connectivity, time pressure, and concerns about performance. When these responses were reviewed together, two themes were identified:

Engagement and Classroom Participation and Pressure and Challenges During Digital Assessment.

Theme 5: Engagement and Classroom Participation

Relationship Between Questions, Theme, and Subthemes

Questions	Theme	Subthemes
Q9. Do digital assessments affect your attention or participation during lessons?		Increased Attention
Q9. Do digital assessments affect your attention or participation during lessons?	Engagement and Classroom Participation	Active Participation
Q9. Do digital assessments affect your attention or participation during lessons?		Enjoyable Learning

Note. Theme 5 and its subthemes were developed from students' responses to Question 9.

Theme 5: Engagement and Classroom Participation

Subtheme	Description	Representative Quote
Increased Attention	Students reported paying more attention when digital assessments were expected.	"Knowing that there may be an online quiz makes me pay closer attention."
Active Participation	Students reported participating more actively during lessons.	"It encourages me to participate more in class."
Enjoyable Learning	Students described digital assessments as interesting and enjoyable.	"It is entertaining, so it increases my attention."

Note. Subthemes were developed from students' responses about classroom participation and attention.

Findings Related to Theme 5

Students frequently described digital assessments as activities that increased their attention during lessons. Many participants explained that they listened more carefully when they expected a quiz or assessment activity. One participant stated, *"Yes because it makes it easier to remember and playfully"* (P4). Another student reported, *"The bright flashcards help me focus on the questions"* (P9). These responses suggest that digital assessment activities helped some students stay focused during lessons.

Students also linked digital assessments with greater participation. One participant explained, *"I think it makes me more confident and makes me more courageous to take more part in it"* (P12). Another student reported, *"If I'm shy to talk to my classmates, it helps me join with my friends"* (P29). These responses indicate that digital activities encouraged participation for some students.

At the same time, several participants described digital assessments as enjoyable and engaging. One participant stated, *"Digital assessments are more interactive so I enjoy them"* (P18). Another student reported, *"It helps me focus during tests and activity lessons"* (P37). These responses show that the interactive nature of digital assessments supported classroom engagement for many students.

Overall, this theme shows that digital assessments often encouraged attention, participation, and engagement during classroom learning activities.

Theme 6: Pressure and Challenges During Digital Assessment

Relationship Between Questions, Theme, and Subthemes

Questions	Theme	Subthemes
Q10. What difficulties, pressure, or stress do you experience during digital assessments?		Technical Challenges
Q10. What difficulties, pressure, or stress do you experience during digital assessments?	Pressure and Challenges During Digital Assessment	Time Pressure
Q10. What difficulties, pressure, or stress do you experience during digital assessments?		Performance Anxiety

Note. Theme 6 and its subthemes were developed from students' responses to Question 10.

Theme 6: Pressure and Challenges During Digital Assessment

Subtheme	Description	Representative Quote
Technical Challenges	Students experienced internet, device, and connectivity problems during assessments.	"If the internet is slow."
Time Pressure	Students felt rushed because of timers and limited time.	"I sometimes experience pressure because of the time limit."
Performance Anxiety	Students worried about scores, mistakes, and correct answers.	"I worry when I do not know whether my answer is correct."

Note. Subthemes were developed from students' responses about challenges experienced during digital assessments.

Findings Related to Theme 6

Students' responses showed that digital assessments were not always easy or comfortable. Many participants described challenges related to technology, time limits, and concerns about their performance. These issues often created pressure during assessment activities.

Technical difficulties were one of the most common concerns. One participant reported, *"The only stress is the wifi connectivity issue and my Chromebook battery"* (P11). Another student stated, *"The school network is very weak so it takes too much time to load"* (P38). These responses show that internet and device-related problems affected students' assessment experiences.

Time pressure was another challenge frequently mentioned by participants. One student explained, *"I have to answer very quickly not only that but the answer should be correct too"* (P9). Another participant reported, *"The timer on the screen makes me feel rushed"* (P28). These responses suggest that limited time often increases pressure during digital assessments.

Students also discussed concerns about scores and performance. One participant stated, *"I worry that I will get a bad mark"* (P13). Another student reported, *"Whenever the digital assessment is marked or is competitive I feel pressure to do well or win"* (P16). These responses show that some students experienced anxiety about achieving good results and avoiding mistakes.

Overall, this theme shows that digital assessment activities created both technical and emotional challenges for some students. Internet problems, time limits, and performance concerns affected students' experiences during assessment activities.

Section D: Reflection and Suggestions

Students were asked about the types of digital assessment activities that help them learn better and whether they wanted to share any additional thoughts about their experiences with digital assessments. Their responses highlighted the activities they found most helpful and provided suggestions for improving the use of digital assessment in classrooms.

Question 11

What kind of digital assessment activities help you learn better?

Students identified a variety of digital assessment activities that supported their learning. Many participants mentioned multiple-choice questions, Google Forms, Kahoot, Blooket, Wayground, and revision quizzes. Several students explained that immediate feedback helped them understand their mistakes and improve their learning. Others preferred interactive activities because they kept them engaged during lessons.

One participant stated, *"MCQ's, chose the correct option"* (P1). Another student reported, *"Competition between students"* (P2). One participant explained, *"Revision quizzes, blue kit and kahoot"* (P7).

Several students preferred activities that allowed them to receive quick feedback and review their answers. Others highlighted the value of interactive quizzes and game-based activities. These responses suggest that students learn best when digital assessments are engaging, interactive, and provide opportunities for immediate feedback.

Question 12

Is there anything else you would like to share about your experience with digital assessments in the classroom?

Students shared both positive experiences and suggestions for improvement. Many participants described digital assessments as enjoyable, useful, and motivating. Some students suggested balancing digital activities with classroom discussion and written work. Others emphasized the importance of using digital assessments in ways that support learning rather than focusing only on speed and scores.

One participant stated, *"Kahoot and blooket are very fun"* (P3). Another student reported, *"Scenario based mcqs will help us to learn more critical skills"* (P8). One participant explained, *"Digital learning is amazing. It teaches us to answer questions with short amount of time"* (P9).

Several students appreciated the interactive nature of digital assessments and the opportunities they provided for practice. At the same time, some participants suggested that digital activities should be balanced with other learning approaches. These responses show that students generally viewed digital assessments positively while also recognizing areas for improvement.

Transition to Thematic Analysis

The responses to Questions 11 and 12 highlighted students' preferences and suggestions regarding digital assessment activities. Students discussed the types of activities that supported their learning, the value of immediate feedback, and ways to improve their classroom experiences. When these responses were reviewed together, one theme was identified: Students' Preferences for Effective

Digital Assessment Activities.

Relationship Between Questions, Theme, and Subthemes

Questions	Theme	Subthemes
Q11. What kind of digital assessment activities help you learn better?	Students' Preferences for Effective Digital Assessment Activities	Interactive Activities
Q11. What kind of digital assessment activities help you learn better?		Immediate Feedback
Q12. Is there anything else you would like to share about your experience with digital assessments in the classroom?		Balanced Use of Digital Assessment

Note. Theme 7 and its subthemes were developed from students' responses to Questions 11 and 12.

Theme 7: Students' Preferences for Effective Digital Assessment Activities

Subtheme	Description	Representative Quote
Interactive Activities	Students preferred engaging and game-based assessment activities.	<i>"More use Kahoot wayground blooket."</i>
Immediate Feedback	Students valued activities that quickly showed results and corrections.	<i>"Instant feedback helps me understand my mistakes."</i>
Balanced Use of Digital Assessment	Students suggested balancing digital assessments with other classroom activities.	<i>"Balance out the usage of chromebooks and physical activities."</i>

Note. Subthemes were developed from students' responses about effective digital assessment activities and classroom suggestions.

Findings Related to Theme 7

Students identified several digital assessment activities that they believed supported learning. Many participants preferred game-based platforms such as Kahoot, Blooket, Quizizz, and Wayground. One participant stated, *"Multiple choice questions"* (P8). Another student reported, *"MCQ type activities like Blooket, Wayground, Kahoot and Google Forms helped me learn better"* (P9). These responses show that students valued interactive assessment activities.

Students also highlighted the importance of immediate feedback. One participant explained that digital assessments were helpful because they could quickly see mistakes and learn the correct answers (P5). Several students felt that quick feedback supported revision and improved their understanding of the lesson content.

Students further suggested that digital assessments should be used in balance with other classroom activities. One participant reported, *"Some times kids don't take digital assessment seriously and choose answers at random"* (P7). Another student stated, *"I think they are useful for learning, but they work best when they are balanced with proper explanation and classroom discussion"* (P5). These responses suggest that students appreciated digital assessments but also recognized the importance of combining them with other learning approaches.

Overall, this theme shows that students preferred interactive digital assessment activities that provided quick feedback and supported learning. At the same time, they emphasized the need for a balanced approach that combines digital assessment with classroom discussion and other learning activities.

Summary of Findings

Students shared a range of experiences with digital assessment activities used in their classrooms. Many participants reported rushing through assessments, guessing when unsure, and relying on answer choices to respond to questions. Several students also referred to scores, rankings, and competition with classmates as important parts of the assessment experience. Participants described challenges such as time limits, internet problems, and concerns about their performance. Many students also viewed digital assessments as interesting, interactive, and helpful for classroom participation. For most participants, digital assessment had become a

familiar part of classroom learning and influenced the way they approached assessment activities.

Discussion

Many students in this study talked about completing digital assessments quickly. Some participants mentioned time limits, while others wanted to finish before their classmates or see their scores immediately. For several students, speed appeared to become part of the assessment experience rather than simply a way of completing the task. Similar concerns were reported by Wise and Kuhfeld (2019), who found that students in computer-based assessments sometimes respond too quickly to engage fully with the questions. The findings of this study suggest that some students may focus on completing an assessment rather than taking time to think carefully about their answers.

Students also linked rushing with immediate scores and competition in the classroom. Several participants said they wanted to see their results as quickly as possible, while others were motivated by the idea of finishing ahead of their classmates. For some students, getting a score quickly appeared to become an important part of the assessment experience. Their comments suggest that speed and results can influence how digital assessments are approached and may sometimes draw attention away from understanding the lesson content.

Participants also reported guessing answers when they were unsure. Several students explained that they selected the option that seemed most likely to be correct, while others relied on the available answer choices to guide their decisions. These comments indicate that some students did not always depend on their own understanding when completing digital assessments.

Similar observations were reported by (Bulut et al., 2023), who found that students in low-stakes digital assessments may use shortcut strategies and expend less effort to answer questions carefully. In the present study, guessing was often associated with uncertainty and time constraints. Some students explained that they chose an answer quickly when they were unsure or worried about running out of time.

Some students explained that they often looked at the available options when they were unsure of an answer. Their responses suggest that frequent use of multiple-choice assessments may encourage greater reliance on answer choices. Over time, students may become more accustomed to recognizing correct answers rather than recalling information on their own. Although guessing can occur in different types of assessments, several students felt that digital assessment activities made this easier.

Scores and competition appeared frequently in students' responses. Several participants referred to achieving high marks, getting first position, and comparing results with classmates. For some students, the score seemed to become one of the most important outcomes of the assessment experience.

Students also described checking their marks as soon as an assessment ended. This suggests that immediate scoring can draw attention towards results and performance. (Senko et al., 2011) discussed how students may become more focused on performance outcomes when success is

closely connected with marks and achievement. A similar pattern was evident in the responses collected for this study.

Wanting good marks can encourage effort and participation. However, some participants appeared to place greater emphasis on scores than on what they learned from the activity. When students become mainly concerned with rankings or marks, learning may take a secondary role to performance.

The findings indicate that scores and competition play an important role in many students' digital assessment experiences. While these features can increase motivation, they may also influence how students approach assessment activities and evaluate their own success.

Many students described digital assessment activities as interesting and enjoyable. Several participants explained that quizzes, games, and interactive activities helped them stay focused during lessons. Some students also reported participating more when digital assessment tools were used in class.

These findings are similar to those reported by (Farid et al., 2025), who found that regular digital assessment activities increased student participation and interaction. In the present study, students frequently connected digital assessments with enjoyment and classroom involvement. Activities such as Kahoot, Quizizz, and other game-based assessments appeared to make lessons more engaging for many participants.

Several students also explained that they paid closer attention because they expected a quiz or assessment during the lesson. This suggests that digital assessment can encourage students to remain attentive and become more involved in classroom activities. Unlike findings related to rushing or guessing, these responses highlight positive experiences associated with digital assessment.

Overall, students did not experience digital assessment in the same way. While some reported challenges and unhelpful habits, others described greater interest, participation, and attention during classroom learning. This highlights the mixed nature of students' experiences with digital assessment practices.

Students also spoke about several difficulties during digital assessments. Internet problems, time limits, and concerns about marks were mentioned by several participants. Some students felt stressed when the internet slowed down, while others felt pressure when they had only a limited amount of time to complete an assessment.

Similar issues were reported by (Noor & Isa, 2023) that students experienced both technical and emotional difficulties in digital learning environments. The participants in this study described many of the same concerns. Slow internet connections, limited time, and worries about results affected their assessment experiences.

Some students also reported feeling nervous when they were unsure of an answer or when they wanted a good score. These comments show that students were not only dealing with technical difficulties but were also concerned about their performance and the possibility of making mistakes.

Although many participants enjoyed digital assessment activities, the findings show that these activities were not always stress-free. Technical issues, time limits, and concerns about marks remained common challenges for several students. Students also shared their views on the kinds of digital assessment activities that most effectively supported learning. Many participants preferred interactive activities such as Kahoot, Quizizz, Blooket, and Google Forms. These activities were often described as enjoyable, engaging, and helpful for revision. Students appeared to value assessment activities that allowed them to participate actively rather than simply complete tasks.

Immediate feedback was another feature that students appreciated. Several participants explained that receiving results quickly helped them identify mistakes and understand areas that needed improvement. This supports the idea that feedback can play an important role in helping students monitor their own learning. At the same time, some students suggested that digital assessments should be balanced with other classroom activities. While they appreciated the convenience and enjoyment of digital tools, they also recognized the importance of discussion, explanation, and traditional learning activities. These responses suggest that students value digital assessment most when it supports learning and understanding rather than focusing only on speed, scores, or competition. Taken together, the findings suggest that digital assessment practices can shape students' learning experiences in different ways. They may encourage engagement, participation, and quick feedback, but they may also contribute to rushing, guessing, score-focused behavior, and assessment-related pressure. The impact appears to depend not only on the technology itself but also on how digital assessments are designed and used within classroom practice.

Conclusion

This study explored how middle school students experienced digital assessment activities and the learning behaviors linked with those experiences. The findings suggest that digital assessments have become a regular part of classroom learning and influence the way many students approach assessment tasks. Participants described a range of behaviors associated with digital assessment activities. Some students reported rushing through assessments, guessing when unsure, and relying on answer choices to make decisions. Others focused on scores, rankings, and competition with classmates. These experiences were often linked to features of digital assessment such as time limits, immediate feedback, and visible results. At the same time, students highlighted several positive aspects of digital assessment. Interactive quizzes, game-based activities, and immediate feedback were often described as enjoyable and motivating. Many participants felt that these activities helped them stay attentive during lessons and encouraged greater participation in classroom learning. The findings also identified several challenges. Technical difficulties, limited time, and concerns about performance were commonly mentioned by participants. Some students experienced stress when internet problems occurred, while others worried about making mistakes or achieving lower scores. Overall, the findings suggest that digital assessment is more than a tool for measuring learning. Students' experiences indicate that it can influence how they respond to classroom activities, approach assessment tasks, and participate in learning. Digital assessment created both positive and challenging experiences for students. As digital assessment becomes more common in schools, it is important for teachers to consider not only academic performance but also the learning behaviors and experiences that may develop through regular participation in these activities.

Recommendations

1. Educators should transition from strict multiple-choice formats to a blended approach incorporating short written responses, explanation-based questions, and classroom discussions. This shifts the student focus from strategic guessing to articulating their cognitive processes.
2. To mitigate rushing behaviors, digital assessments should be designed with generous time limits and scoring rubrics that reward critical thinking rather than rapid completion. Providing sufficient time allows students to focus on understanding the core concept.
3. Schools should encourage teachers to conduct post-assessment reviews that focus on learning outcomes, common misconceptions, and correct explanations. This pedagogical shift helps reframe digital assessments as formative learning opportunities rather than mere performance measures or competitive rankings.
4. Educational institutions must invest in reliable internet connectivity and robust technical support. Minimizing technical disruptions is critical to reducing student anxiety and allowing learners to focus entirely on the academic tasks at hand.
5. Training programs should be established to equip teachers with the skills needed to design effective digital assessments. Professional development should specifically focus on creating digital tasks that align with learning objectives, encourage student reflection, and minimize negative testing behaviors.

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