Teacher–Student Interactions in Face-to-Face and Online Learning: A Sociocultural Case Study in Malaysian Higher Education

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Abstract. This study problematizes the way teacher–student interactions in higher education change as teachers and students transition from face-to-face to fully online learning. By using a qualitative case study conducted over six months at a Malaysian public university, audio-recorded and observational data were gathered from two instructors and approximately 70 students, including interviews with 10 selected participants. Findings show that face-to-face instruction offered structured guidance, immediate feedback, and rich interaction, which supported deeper engagement and learning. In contrast, fully online environments relied heavily on one-way delivery and asynchronous activities, which maintained access but limited dialogic exchange and self-regulated learning. These results suggest that online learning, while necessary for continuity, is not a complete substitute for in-person interaction, because it risks diminishing comprehension and outcomes related to critical thinking. These insights prompt critical questions about how teacher–student dynamics influence learning experiences and outcomes, particularly for achieving equitable education under Sustainable Development Goal 4. The study underscores the need for institutional readiness, particularly for policies and infrastructure that support effective digital pedagogy, and highlights the importance of

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teacher training for designing blended, interactive, feedback-rich online environments. It also calls for sensitivity to the cultural–technical interplay that shapes how educators and students navigate digital spaces, by ensuring that technology enhances rather than replaces the social dimensions of learning.

1. Introduction

In the 21st century, we rely heavily on technology to carry out daily affairs, including participation in educational activities. However, this reliance does not necessarily equate to the provision of quality education as envisioned by the United Nations in Sustainable Development Goal 4 (United Nations, 2023). Admittedly, digital technologies can enable inclusive and equitable education during emergencies such as global pandemics, wars, displacements, and other crises. Yet, it remains a double-edged sword—these same technologies can also hinder students from accessing quality education.

A critical issue during the global COVID-19 pandemic, for instance, was that approximately 826 million students were unable to attend face-to-face lessons, and 706 million of them lacked internet access at home at a time when digital-based education was adopted to ensure education continuity worldwide (UNESCO, 2020). Moreover, online learning seems to have been widely adopted as the preferred modality by education institutions. For instance, a major university in Australia decided that students would "no longer attend face-to-face lectures, … gradually replaced by rich digital learning activities" (Burns, 2024).

The uptake of online learning and digital technologies in the current education stream raises the question: What is the relevance of face-to-face education, and how does the teacher–student dynamic shift when education transitions from physical to online learning? As we move past the pandemic toward an increasingly digitalized world, in which online learning and artificial intelligence may become the norm, it is imperative to understand what is at stake so that we can better navigate the challenges ahead.

To begin answering these questions, this paper details the findings of a study that examined the interactive dynamics between instructors and students at a university that implemented face-to-face and fully online learning, before and during the pandemic, respectively. This research was prompted by an understanding that learning is fundamentally a social activity and by the question of whether fully online learning can sufficiently support teaching and learning. The study problematizes the impact of transitioning from the conventional delivery of in-person and online learning to a fully online setting, and evaluated the adequacy of fully online learning to meet the demands of effective teaching and learning.

At the same time, it is important to acknowledge that the effectiveness of online learning is shaped by broader institutional and policy factors. Institutional policies that govern digital instruction and teacher-preparation frameworks critically influence how educators design, facilitate, and adapt to online pedagogies, including the use of artificial intelligence in education (Meng et al., 2024). These factors not only affect teachers' readiness and confidence to manage technology-mediated instruction but also determine the extent to which institutions can sustain quality and equitable learning experiences. Therefore, while this study focuses primarily on classroom interaction, it also gestures to the need for institutional and policy-level reflection, because such structural conditions ultimately mediate the teaching and learning processes observed in online settings.

By recognizing that learning is principally a social process in which people are not seen as autonomous entities, the study adopted a sociocultural perspective with the premise that human activities are mediated by and cannot be detached from their environments (Saljo, 2023; Wertsch, 1991). Teaching and learning are mediated by physical tools such as computers and keyboards, pens and paper, and psychological tools such as language, gestures, and signs (Vygotsky, 1978, 1987). By considering the importance of interactions in education, including teacher–student interactions, teacher–student–tool interactions, and cultural interplays, this research aimed to illuminate how teachers and students use various forms of mediation to engage in academic pursuits, in both face-to-face and online contexts.

It also aimed to determine what aspects of mediated tool resources benefited or harmed effective learning and instruction. The significance of the study lies in understanding and appreciating how interactions occur, because they shape how we learn, exchange ideas, and achieve our goals in lessons (Kharroubi & ElMediouni, 2024; Vygotsky, 1978), and in examining how these micro-classroom interactions may be interrelated with the macro-institutional forces that influence what happens within those classrooms.

2. Literature Review
This section reviews key literature that frames the study's analysis of classroom interactions across learning contexts. It discusses the sociocultural perspective in education, the role of teacher support and feedback in shaping learner engagement, and the effect of cultural interplays on teaching and learning dynamics.

2.1 Sociocultural Perspective in Education
In an educational setting, individuals are expected to participate in interactions related to learning activities. In the academic setting of a university, teachers and students are commonly seen as the primary stakeholders. Situations involving people entail overt and covert interactions, and peers and teachers providing various types of support and feedback. For instance, Antón (1999, p. 315) observed that a dialogical teacher who used strategies such as "communicative moves as directives, assisting questions, repetition, and nonverbal devices such as pauses

and gesturing" effectively engaged students in meaning-making while maintaining adherence to classroom rules. Therefore, the many functions of language in education and cognitive development are at the heart of the dialogues that constitute learning (Furberg & Ludvigsen, 2008; Wertsch, 1991). Students need more than just classroom instruction and course materials to thrive; they also need the support of adults and opportunities to work with their classmates.

Research by Sueyoshi and Hardison (2005) highlights the benefits of gestures in the classroom for student learning. They found that students who listened to a presentation with audio and gestures had better comprehension scores than those who listened to the same course with audio only. However, the impact of gestures on comprehension varies according to students' proficiency levels. While low-proficiency students performed better with gestures and facial cues, high-proficiency students excelled, even with gestures alone.

This suggests that a physical space conducive to incorporating gestures in teaching and learning activities can enhance task performance for students of different proficiency levels. Another important cultural presumption is that cultural tools are integral to the educational process. Cultural tools, specifically digital technologies, have non-linear effects on the educational process. Digital tools affect society by changing how we work, communicate, maintain relationships, and engage in other social activities (Saljo, 2023). As a result, it alters our perceptions of and participation in educational pursuits.

Learning settings are naturally intricate because students participate in constructing meaning for a classroom, while also being required to comply with institutional expectations and standards. The interplay between the two situations has the potential to modify their perspectives on education. For instance, students can engage in a genuine orientation that is connected to the meaning-making of topic concepts while simultaneously gathering important information (Furberg & Ludvigsen, 2008).

Nevertheless, students are compelled to make practical decisions when they are reminded of the time constraints of a task, which highlights the substantial role of time as a fundamental organizing principle in learning institutions. Put simply, learning activities taking place within an institutional framework govern students' behavior through rules, norms, and socio-material structures (Furberg & Arnseth, 2009).

2.2 Teacher Support and Feedback
Brief student replies and a lack of focus on using speech for instruction and learning characterize most teacher–student interactions in the classroom (Galton, 2007). Initiation–response–follow up/feedback (IRF) and similar closed questions (Mercer et al., 2009) are also part of teacher–student interactions. This format is a method of instruction by which instructors construct IRF exchanges by requiring students to answer multiple-choice questions that were designed to assess their level of comprehension (Mercer et al., 2009).

The goal of mediation in this type of learning environment is to help students develop self-regulation skills by facilitating interactions between experts (such as teachers) and non-experts (such as students) (Poehner, 2008). The purpose of feedback is not merely to correct students but also to promote their development by supplying hints and clues, leading questions, and explicit information (Jamil et al., 2024) — it is mediation during an interaction (Fathi & Rahimi, 2024; Strømme & Furberg, 2015).

For example, the IRF format does not restrict itself to using only closed questions. Teachers' questions can help students with reasoning, encourage them to be explicit with their thinking process (Furberg, 2016), use question-and-answer sequences to assess comprehension, guide the development of understanding (Shi et al., 2024), and model language that is suitable for learners to use in group discussions (Mercer & Littleton, 2007, p. 36).

Explicit and implicit correction are two other types of feedback that teachers use with their students. Feedback, ranging from explicit to implicit, may be provided at any point during the learning process. Studies have found that, although learners demonstrated the ability to rectify errors independently and received adequate feedback, they still sought confirmation from mediators (e.g., an instructor) about whether their performance was precise or correct (Fathi & Rahimi, 2024; Furberg, 2016; Jamil et al., 2024).

It is a usual practice for educators to step in and help students grasp concepts when the students struggle (Furberg & Arnseth, 2009; Strømme & Furberg, 2015). Interventions made by teachers help students focus on the big picture, which must be balanced between students receiving information and building on what they already know (Silseth & Furberg, 2024; Strømme & Furberg, 2015). Most significantly, interventions show how a teacher's involvement in the classroom functions as a glue to bridge the gap between online materials, collaborative learning, and instructional design, especially when these various types of support fail (Ampo et al., 2025).

However, students are unlikely to benefit from teacher–student interactions if the instructor's support ceases too soon, as this may leave students insufficiently prepared for the lesson and unable to meaningfully engage in subsequent student–student interactions that are essential for learning (Van de Pol et al., 2019). Studies that examined the shift from face-to-face to fully online learning have produced inconclusive findings. For instance, Polujanski et al. (2020) report that university students were generally happy and highly satisfied with fully online learning, possibly because it increased learning flexibility and provided them with more free time. However, students who were not technologically adept described experiencing disappointment as a major emotion in the online learning context (Händel et al., 2020).

These studies reveal a paradox, of students simultaneously experiencing satisfaction and dissatisfaction with learning. This contrast may be better understood through a micro-analysis of student–teacher interactions in the online

modality. Studies also report suboptimal teacher support and a lack of direct social interaction (Bahar et al., 2020; Wong, 2020). Consequently, we could ask, what impacts could these factors have on teaching and learning experiences, and how do such limitations manifest in practice? This study explored these issues and addressed a gap in literature, particularly regarding research that examined the intricacies of interactions from a sociocultural perspective.

2.3 Culture Interplays in Classrooms

In Asian classrooms, including Malaysia, there seems to be a preference for structured learning, for a degree of respect relating to hierarchical status and positions, teacher-centered approaches to instruction, and students using implicit and indirect communication (Wursten & Jacobs, 2013). These researchers explain that students in classrooms in countries such as the United States, the United Kingdom, and Australia are more actively involved in their education; here teachers provide only a high-level outline of a lesson, which provides for more flexibility in class structure and a focus on problem-solving through assignments and verbal exchanges.

However, Ramburuth and McCormick (2001) found no overall difference in learning approaches between Asian and Australian students. Asian students showed higher deep motivation and achievement strategies, while Australians used more deep strategies and surface motivation. Asian students also preferred group, auditory, tactile, and kinesthetic learning styles, especially group learning, which may indicate a stronger collaborative tendency. Awang and Sinnadurai (2011) found that Malaysian students demonstrated better learning outcomes when they were provided with assistance, feedback, and remedial exercises in learner-supported environments. Rather than attributing reliance on teachers to cultural traits, Awang and Sinnadurai argue that learning progress depends more on classroom structures and teaching methods than on students' inherent characteristics.

Students from Southeast Asian cultures are known to be reserved and quiet in class until their teacher specifically asks them to speak up (Park, 2000). Because students' mistakes could be brought up in class, Asian students take great care not to embarrass themselves, and therefore approach classroom participation with extra caution. Students' inaccuracies are made public to ensure that students understand the nature and cause of the problem and to alert other students to the mistake, so that they can avoid making the same error (Cortazzi, 1998). Cortazzi provides the example of Student A, who made a mistake, was asked to observe Student B and C fix the mistake. The instructor then recalled Student A and observed them making a successful effort. Rather than ridiculing or humiliating Student A, the other students in the class cheered Student A's achievement, thereby demonstrating communal support among students in the classroom.

3. Methodology

This study probed the mediated social activity inherent in teaching and learning, with an underpinning of a sociocultural perspective that recognizes the influence of social, historical, and cultural aspects on the process by which a person learns

(Kharroubi & ElMediouni, 2024; Lantolf & Thorne, 2006; Vygotsky, 1987). From this vantage point, studies presume that, as a result of human subjectivity, knowledge is contextual, multifaceted, and socially created. Consequently, a qualitative case study design was chosen to allow for a nuanced exploration of subjective knowledge in the sphere of education and the acquisition of knowledge (Mokhtar, 2018; Stark & Torrance, 2005).

3.1 Methods and Data Collection
The data were collected over approximately six months at a public tertiary educational institution in Malaysia. Teachers willingly provided access to their classrooms. The study unit was university students in their second or final years who were required to take an English language course. As part of the goal of the course to foster language application for social and professional contexts, students practiced writing cover letters, emails and proposals, and participated in mock interviews. However, the focus of the research was not to assess the course content, instead, it examined the interactions occurring in the context of the course.

The participants comprised two instructors, Awan and Bayu, and undergraduates in two classes, which each comprised between 30 and 36 students. Instructors and student participants consented to classroom face-to-face and online learning observations and audio recordings being done (Merriam & Tisdell, 2016; Yin, 2014). Next, the study employed convenience sampling to select 10 student participants based on their availability and willingness to participate in interviews and closer observations involving task completions for the course.

This approach was deemed suitable for gaining an understanding of learning activities within a specific timeframe and context by focusing on interactions in irreplicable, realistic environments (Mokhtar, 2018). It should be noted that the sample size in this study may not represent the broader student population. Nonetheless, the insights derived from these participants, coupled with a sociocultural perspective, provide in situ, context-rich, and exploratory understandings that can inform future and larger-scale investigations.

The theory of mediated action is based on the notion that actions are transformed when a number of factors interact with one another (Wertsch, 1995). Through action, the individual and society are perceived as interdependent moments that encompass mental functioning and social surroundings (Kharroubi & ElMediouni, 2024; Wertsch, 1995). Two approaches were used to record these mediated activities: interviews and observations.

Interviews provided a glimpse of the first-hand experiences of people who use these mediational tools. Observations captured moments of interactions and resource use for individual and collaborative tasks across face-to-face and online tasks, and indicated who, what, when, and how interactions unfolded. By focusing on interactions as the unit of analysis, the study aimed to explore how mediational means are used in different contexts, without inferring causation (Wertsch, 1991).

The study conducted classroom and online class observations prior to conducting interviews with the participants. For example, after Topic A was completed, one participant from Class A and one from Class B were interviewed; this pattern was repeated for subsequent topics until the end of fieldwork. A semistructured observation protocol and interview schedule were used as the data collection instruments.

Several open-ended themes from the literature were prepared in advance for the interview instrument and data analysis, such as "support received and offered (to and from colleagues)" (Frøytlog & Rasmussen, 2020; Mercer & Littleton, 2007) and "support expected, received, or not received (from instructors)" (Furberg, 2016; Strømme & Furberg, 2015). Other questions were derived from the observations, including aspects such as "noticeable shifts from face-to-face to fully online learning activities" or "how/why specific tools were needed/used."

3.2 Data Analysis

Two complementary methodologies were used as inspiration for the analytical approach of the study: Thematic analysis (Braun et al., 2019) and interaction analysis (Furberg, 2016; Knain et al., 2021). Thematic analysis was adopted to identify broad and recurring patterns in students' reflections, thus capturing how they conceptualized their learning experiences and task engagement. Interview data were repeatedly reviewed, transcribed verbatim, and coded both inductively (codes such as volunteer and clarify) and deductively (codes such as feedback and guidance) to identify patterns of mediated learning.

NVivo 11 supported data organization and theme development, which allowed for related codes to be clustered under broader categories, such as feedback, thereby reflecting teachers' support in learning activities. Themes were continually refined to ensure they represented core learning actions in both physical and online modalities, that is "teacher feedback and affirmation" and "one-way lesson delivery". Although thematic analysis focused on identifying overarching meaning patterns, it was unable to fully capture the situated and temporal nature of learning interactions.

Subsequently, interaction analysis was applied to audio-recorded classroom observation data to examine how meaning was co-constructed through moment-to-moment exchanges of talk, gestures, and tool use (Mercer & Littleton, 2007). The method focused on sequential interactions in classroom task settings to understand how learning unfolded socially and contextually. Data were transcribed verbatim and analyzed in their original language, to retain nuance.

Coding was also done inductively and deductively, and interactional functions such as feedback, negotiation, guidance, agency, and affirmation were identified. One compelling aspect of the selected excerpts that are examined in this article is the variety of mediational relationships observed during teaching and learning activities. Through this fine-grained analysis, the study reveals how meanings and knowledge are jointly constructed in situated contexts, thereby

demonstrating the sociocultural view that communication, thinking, and learning are interdependent processes that are shaped by culture and mediated action.

Thematic and interaction analyses were employed purposefully and complementarily to explore learning activities as contextually situated and socially mediated processes. The former afforded overarching patterns, while the latter demonstrated how these patterns occurred moment-to-moment in real interactions. Their interplay in the analytical design of this study underscores that findings are deeply context-specific yet theoretically aligned with sociocultural understandings of learning as interdependent and tool-mediated, and shaped by participants' local realities.

4. Results and Findings

The findings reveal two main themes related to teacher–student interactions in face-to-face and fully online learning contexts. In the conventional modality, teachers and students met in person, and the primary theme centered around teacher feedback and affirmation. In the fully online learning setting, however, learning was characterized by one-way lesson delivery. These findings should be viewed as situated within a specific institutional and cultural setting. Nonetheless, through analytical generalization, the study provides conceptual insights into how autonomy emerges through social and tool-mediated interactions, and has implications for comparable educational contexts.

4.1 Teacher Feedback and Affirmation in Face-to-Face Lessons

An important element of learning activities that involve interacting with students and instructors in person is teachers providing feedback and affirmation. In this paper, typical face-to-face lessons in Classes A and B are demonstrated using excerpts from audio recordings of classroom lectures. Class A was taught by Awan, and Class B by Bayu. Classes A and B met in person at the university for two hours every time to write cover letters.

The cover letter stood out for the analytical procedure because of its abundance of information regarding instructor interactions with students, and the two lessons covered the same material. In face-to-face lessons, students learned in a more traditional classroom setting. Teachers provided guidance and structure by introducing the material, asking students questions to ensure they remembered or understood, assigning homework or class projects, and concluding with a summary of the lesson. For instance, in the first few minutes of class, the teachers introduced the topic and asked the students a question:

> Awan: "Who does not know what a cover letter is, raise your hand."

In the excerpt above, Awan, who teaches Class A, initiated a query to determine the knowledge of the students regarding the definition of a cover letter. He elicited feedback on the topic by instructing the students to "raise their hand," the students had to use a bodily gesture as a signal to indicate their comprehension or prior knowledge of the issue.

Meanwhile, in Class B, Bayu asked:

> *Bayu: "What is a cover letter for? [students murmur 'formal'] Formal?*
> *… Yes, it is a formal letter for a formal purpose … What is the purpose of*
> *writing a letter? [students murmur 'to apply for jobs']."*

In this excerpt, Bayu inquired about the purpose of a cover letter before providing additional details on the question in response to students' responses. The two instructors used different communication techniques to obtain responses (Awan asked for visual cues, while Bayu sought verbal answers), and both teachers' activities might be understood as attempts to assess the students' understanding of the subject.

The observation during the lesson indicated that the students in Class A, taught by Awan, refrained from raising their hands during the lecture. It could be because they are all well-informed on the subject. However, cultural factors could also influence this behavior, such as feeling anxious about being scolded by the teacher, drawing too much attention by raising their hands, or feeling ashamed in front of classmates for not knowing enough. In turn, in Class B, Bayu elicited students' feedback on every question while restating their replies. By doing so, she confirmed what the students already knew and guided them to explore the subject further.

As the lesson continued, Awan elicited replies from students by gradually advancing in the presentation and asking, *"What do you know about email? Where do you write your cover letter? Where?"* Like in Class B, students in Class A offered answers to the probes *"in application form."* Awan responded by stating,

> *"But the word letter (in cover letter) implies that it is a letter, so it's not*
> *available in the application form. Nowadays, how do you send cover*
> *letters?"*

Students responded, *"(via) email,"* which Awan confirmed, and proceeded to provide further information, including mentioning, *"email. So, cover letter isn't … on paper anymore … but in email."* The evaluation of this excerpt yields results identical to those reported above, namely that teachers actively assessed students' understanding of the subject matter while correcting and reinforcing their contributions by restating the offered responses.

Awan asked questions such as *"Understand so far?"* and Bayu said, *"Any questions regarding number one?"* These questions enabled teachers to gauge their students' comprehension and attendance as the class proceeded by, for instance, testing students' ability to follow the lesson at specific intervals, and giving them the opportunities to ask questions and get help as they learned. Furthermore, by checking in with their students, the teachers gauged students' level of comprehension.

Doing so helped them address questions or concerns students may have had as the session progressed, instead of spending extra time at the end of the course going over the same material again. If these opportunities had only been provided at the end of the lesson, students might not have had enough time to fully grasp

the material or may have formed interpretations of the lesson that differed from the instructors' original intent. Another problem may have been that some students possibly struggled to grasp the lesson and did not have sufficient opportunity to thoroughly comprehend it before the lesson ended. If left unchecked, these issues could manifest in students' work when they are assigned tasks, such as creating content that differed from what had been taught, or failing to achieve the course's required standards.

Toward the end of the lectures, teachers required students to complete formative assessments comprising class discussions or checks of students' answers. To illustrate the point, Awan, in Class A, requested the students to work in groups of four or five to compose a letter. Each table was assigned a paragraph: the introduction of the letter by Group 1 and the conclusion by Group 5. The letter was composed in real time in Google Docs so that every student in the class, not just the groups, could work together and view the letter simultaneously.

The cover letter was shown to the students in Google Docs via a screen projector. The groups' contribution to its allocated paragraph was typed by one or two students using their smartphones. Awan visited each group's table as the allotted time drew to an end, to monitor how the students were doing. He paused at the table of Group 1, perused their Google Docs output, and then complimented them: *"this sums up the first paragraph very nicely ... It's a good achievement."* The students appeared pleased, and grinned in response to Awan's comments.

Through his praise, Awan reassured the students that they were progressing in their studies. When students smiled at each other, it showed they were proud of the group's success and confident in their abilities. In Class B, Bayu distributed a textbook assignment. The five-question assignment was one of the few formative assessments of the two-hour class and was based on the lesson just given. As students worked on this independent assignment, Bayu circulated the classroom, pausing to assess students' progress and field their inquiries. Students were chosen randomly from the attendance record to provide answers as the exercise neared its conclusion. Bayu moved around the classroom. When asked, *"why is a cover letter needed to apply for a job position?"* a student named Haz was asked to explain:

> Haz: (standing) *"To convince the employer that he has the ability to the knowledge and ability do the editing."*

> Bayu: (nods) *"To convince the employer that he has the ability **and the** knowledge, as well as ability **to** do the editing, okay, and actually it is because in the job advertisement, you may sit down thank you [looks at the student], … because here the requirements, … **remember**, when you write the application letter it is to show that you are the best candidate for the position."*

According to the excerpt, Bayu not only corrected Haz's response but also looked directly at the student, all while restating the student's answer to the entire class. The teacher confirmed that the student's answer was accurate by nodding and repeating it. The actions of the student standing and the teacher looking directly

at him exemplifies a type of collective participation unique to the physical classroom. Furthermore, students standing up or sitting down when they responded to the teacher and cooperating when asked to answer exercise questions could indicate a power imbalance between teachers and students, or that offering to answer is not common practice in this setting. Moreover, Bayu took a moment to correct the student's answer while the class was on the subject of discussing it (that is, "***and the*** *knowledge … **to** do*"). She also offered further elaborations on some of the content she had recently delivered as an instance of immediate and direct feedback for this student and others to learn from: "**remember**, when you write the application letter it is to show that …"

The two lessons on cover letters included questions that the teachers asked to gauge the students' familiarity with the material. It also implies that teachers avoid providing all the knowledge to their students at once; instead, they build up more complex ideas and concepts over time. Instructors acted as facilitators for students from the start of the lesson to the completion of formative activities; this was evident in Class A's tasks and Class B's group projects, and this approach ultimately led to students completing the tasks.

In addition, both the teachers and the students could gauge each other's grasp of the material through bodily signals, which allowed the teachers to modify their teaching methods (e.g., by restating or paraphrasing information) based on the students' progress. Moreover, nonverbal cues in a group setting, such as the instructor nodding to indicate agreement with a correct answer or students smiling after receiving constructive criticism, all played a role in the learning exercises (e.g., task completion and confidence).

The signals and responses that were given during the lessons could be seen as a form of feedback or affirmation provided in a collaborative setting. Feedback was indicated when participants' eye contact, nods, and raised hands were instantly understood and returned, and when there were plenty of opportunities to ask for help throughout the two-hour lessons (such as *"Understand so far?"* and *"Any questions regarding number one?"*), which enabled support to be provided immediately.

A student participant, Orked, revealed, *"With lecturer, only when she was checking it [during lesson] then I get feedback."* This finding is consistent with the findings from interviews, which indicate that feedback is direct and prompt regarding the lesson's delivery. This finding confirms the idea that most interactions between educators and their students during educational activities take place in person.

Putri did not see this as a drawback; she said, *"Before submitting [any task] I ask 'Madam, please check first'"* — this is her preferred method of obtaining feedback in class because it allowed her to get the necessary validation of her work. At the same time, this sharing brought attention to the appropriation of shared spaces, which provided students with immediate support for their learning through direct interactions, which boosted their confidence when they completed tasks.

In a hybrid in-person and online learning context, students sometimes reach out to their teachers to address their uncertainty through online chats. On one occasion, Orked recounted a minor disagreement that arose during a group project, when she and a teammate believed that another teammate was approaching the assignment wrongly. They decided to reach out to their teacher in a private WhatsApp group to get pointers on how to do it the right way. *"Then, in the end, we asked Doctor on WhatsApp, Doctor said 'yes can do it [the assignment] like what he did'."*

The affirmation effectively ended the conflict, and when the teacher concluded that the groupmate's work was also acceptable, no further questions were asked. The conversations demonstrate how a teacher's affirmation could help students work through group conflicts and receive feedback on their assignments. Not challenging a teacher, even when some students think a groupmate's writing does not meet their expectations or comprehension of the task, highlights the institutional and cultural components of the interactions.

When the instructor fails to supervise students' advancement in an academic task, such as administering their group to assess their work, other resources, such as textbooks, may help to provide validation. Students confirmed that the textbooks provided them with direction to guarantee they were making the necessary progress toward completing tasks and passing the course, as instructed by their teachers.

> Putri: *"The textbook, … I can know what to do first, what to do later, … I don't feel so blank to do the task."*
> Orked: *"The book is only for guidance to get the work done … to pass the course."*

To summarize, feedback and affirmation are essential components of teacher–student interactions in both traditional and virtual classroom settings. These components include activities such as assessing students' topic mastery and verifying their work for accuracy. According to the findings, learning activities require an authoritative figure or individuals to validate understanding or provide constructive criticism. Students' confidence was enhanced when teachers repeated students' responses and confirmed their work. They smiled when they heard positive comments and double-checked their work before submitting it. For example, in teacher–student interactions, visual cues such as "raise hands" indicate ignorance of the subject, and "stand up" in response to a teacher's inquiry highlights the cultural power differential between the two groups.

4.2 One-Way Lesson Delivery in Fully Online Learning
One-way lesson delivery through fully online learning is the central emphasis of this theme. Awan and Bayu, the course instructors, carefully selected their instructional materials from Google Classroom and Padlet, two online platforms. Asynchronous activities constituted most of the educational activities. Video recordings of task instructions, slide shows, notes, and assignment paperwork were the key components of both instructors' instructional materials, while the exact content varied. The instructors also communicated with students via WhatsApp for announcements and quick messages.

What follows are snippets from a single asynchronous video that Awan published to Google Classroom, which contains his mock job interview lesson for Class A. His lesson video was embedded in PowerPoint slides. We selected this content for discussion in this paper because it combines the instructor's video recording with the topic matter into a single slide display. By using visuals in this selected content, the asynchronous instructional activity could be studied more thoroughly. The attempted interactions or strategies to promote student communication, as recorded in the video, are the primary focus of the examination.

In Awan's PowerPoint presentation, the subject matter is presented in point form on the slides. Awan included his video recordings, starting with Slide 4, in the 32 slides. While the point-form content of the slide occupies most of the frame, the video is positioned in the bottom right of each slide. The following analysis refers to interview excerpts and photographs from the online platforms of the course.

In the video (Slide 4), Awan encourages students to request a tutorial session from him if they needed extra help, and he asked them to form a group of at least five members to do so.

> Awan: *"I'm going to prepare... a slot in my time where people can congregate … if you get more than five people to join, then we can do a Q&A, quick session with me."*

This excerpt shows a shift of responsibility from the instructor to the students, who were now expected to work collectively and approach their instructor if they needed more support. One interpretation of Awan's offer is that it is a call to action for students to participate. Next, in the following slide, Awan reads aloud: *"So what influences/determines an interviewee to be hired/rejected?"* This question is not based on a genuine desire for input, hence making it rhetorical.

Moreover, the teacher provided an answer to this question in the following slides. Awan elaborated on the points made in the following slides by reading them aloud. In order to retain students' attention, this kind of instruction minimizes repetition by providing more detailed explanations of the material. Awan appeared to be looking away from the camera or gazing at the slides while he elaborated on the important points presented there. While he went into detail about the topics covered on the slides, his unfocused stare made it evident that he did not have a live audience to interact with in the online lesson. Had the lesson taken place face-to-face, he could have looked directly at individuals and engaged with them while he spoke. This behavior is typical of classroom interactions, where teachers can see their students and get immediate responses.

Awan stopped midway through the presentation slideshow and addressed the camera directly: *"I'm going to take a breather for a minute"*. He invited the students to unwind and hoped that everyone was in good health and safely home, saying, *"I hope you have a good day and taking care of yourself and your family."* In this case, pleasantry can be considered as a way to connect with students while they watched and listened to the video recording asynchronously.

Even though Bayu in Class B did not use synchronous online teaching or publish materials containing both her video recording and slideshow presentation, her pleasantry was displayed in the class WhatsApp group chat when she inquired about the students' situations, as demonstrated by Figure 1 below.
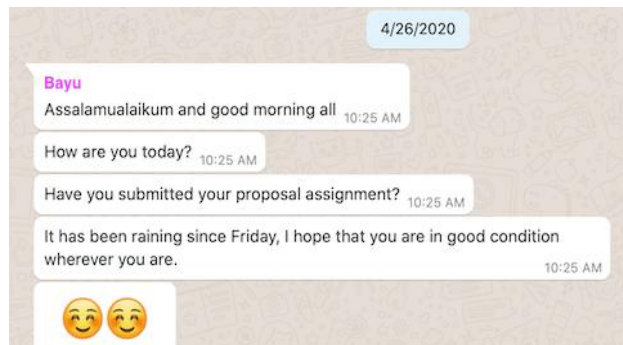

Figure 1: Pleasantry on WhatsApp Group chat in a fully online learning context

As can be observed from Awan's method and that of Bayu in Figure 1, the two approaches differed in the way they were delivered and how they appeared, but both aimed to make the instructors and learners feel connected. From a cultural and institutional point of view, instructors were expected to care about their students' well-being and were seen by students as inspiring figures. Inspiring here means that the teacher's actions in the initial excerpts can be linked to cultural expectations of the teacher–student relationship.

At different points in the video, Awan used his hands to illustrate examples that were connected to the subject: "*let's just create a hypothetical situation … listen to them attentively [gesture with hands].*" Elsewhere, he described personal experiences, "*I've had a lot of experiences with people who ….*" The hand gestures are noted because, at different times during the video recording of the lecture, he placed his hands and elbows on the table. These two examples of gestures show distinct approaches to engaging the audience by making the material relevant and encouraging them to think about possible outcomes related to the subject. Thus, it may be inferred from the gestures that the instructor attempted to highlight certain areas and content.

Awan also recalled past classroom lessons that had taken place earlier in the university semester: "*you know, I already discussed this with you in class … Think ahead of the difficult question [for an interview].*" This action is meant to draw connections between prior lessons and the current lesson, to assist students' understanding and to continue topics in the course.

Toward the conclusion of the presentation, Awan became aware that he was filming, for which no feedback could be collected. He conveyed his lack of interest in reading the material, and pointed out the absence of audience engagement in his environment. Shortly after that, the video ended abruptly.

> Awan: "*I'm not going to read them … I don't have an audience to interact with right now. I'm only interacting with a camera.*"

The aforementioned remark made the students, as listeners, aware of the fact that they were not participating in a synchronous lecture, which, in turn, may have made them feel self-conscious about their passive involvement. The situation illustrates how greater attention is often given to physical context, thereby making online learning activities—whether synchronous or asynchronous—comparatively less engaging.

Two key points emerged from the analysis of the lesson recordings. The first point relates to the use of signals to promote audience interaction in the recording. Instances include, i) The instructor's eye contact and gaze as he looked directly into the camera, which implied a sense of interaction with students, and when he looked elsewhere, which suggested that he was thinking while he explained more on the topic's content; and ii) The instructor's gestures that could be seen in the video and which helped to convey his points as he elaborated the subject.

The second point is the mediation role of technological tools, which could facilitate or limit learning opportunities. On the one hand, technologies were employed to promote learning activities and support lessons despite the physical separation of the instructor and students. On the other hand, technologies heightened students' awareness of their actual environments, and their learning was limited, because students were not as invested in the virtual context. Also, it is worth mentioning that, even though the institution had a virtual learning platform, teachers still used various resources that they thought would be helpful for their lessons.

Both instructors mentioned that they continued to practice their lesson delivery, albeit in a fully online learning context. Furthermore, in Bayu's interview, she said she hoped that students would contact her for support at any point in their knowledge-inquiring journey.

> Bayu: *"Every semester … give them [students] the notes, they are to read, and to try to do the task and if they cannot understand, they can always come back to us to ask."*

> Awan: *"I'll use the slides and give the instructions for the task. I hope that students manage to understand … and manage to do the tasks."*

Notwithstanding the uniqueness of the circumstances, these comments suggest that online learning activities should be accepted as a normal practice. *"Every semester... give them notes,"* *"they can always come back to us to ask,"* and *"hope that students manage to understand"* are all ways by which teachers implied that their students should not only achieve a specific degree of knowledge but also actively seek assistance when they needed it.

To establish relationships between the excerpt above regarding Awan encouraging students to form groups of five or more to arrange a private tutorial with him, and these excerpts, we claim that there was a shift, from teacher-centered methods to students being expected to plan and arrange their tutorials, study the course materials on their own, and complete group assignments despite being geographically separated and isolated in the fully online learning context.

Essentially, the sudden shift may have prompted a shift in perspective and a demand for more student agency in the classroom.

In discussing learner agency, Awan noted that participation in his synchronous online lessons was limited because students seldom asked questions and they remained largely passive.

> Awan: "The Q&A session just now was very brief, because I keep asking students to come out with questions to ask and they were really silent."

However, through triangulation during analysis, it was later revealed that, in response to the lack of participation, students asserted that synchronous sessions provided limited opportunities for interaction with instructors.

> Fasha: "I do have many questions to ask but I don't know how to ask, what's more with time pressure."

> Orked: "Like, scared to ask more questions. [Sometimes] I don't have any question to be asked because I don't understand what the Doctor is teaching and saying in there."

This implies that, even though few opportunities were presented in synchronous online learning, students were expected to come prepared to the sessions, and to ask questions at the end. However, this situation contributed to a lack of spontaneity, and increased time pressure, which may have prevented student participation. Moreover, these live online sessions ended when the instructor closed the session, which resulted in fewer opportunities to ask questions after lessons. In the online environment, students had no sense of who else was in the synchronous session, particularly because some students turned off their cameras. Consequently, students could have felt less motivated to speak in the virtual space, and they were timid about asking the instructor questions.

The extracts indicate that students did not get help from instructors, even when they were explicitly invited ask for assistance. This reluctance could have stemmed from a limited understanding of the subject and a perceived cultural and institutionalized power gap that discouraged open interaction. Therefore, students engaged in lessons mainly to fulfill course requirements. Ramli admitted passively accepting information to pass, and Orked described pretending to understand during online lessons for reasons that she did not elaborate on further.

> Ramli: "Just accept information. As long as I pass."
> Orked: "I don't understand ... don't understand actually but ... pretend to understand."

The pattern of students' attitudes reflects low self-confidence and limited agency in navigating fully online learning. Meanwhile, instructors were unaware of these challenges, and continued to post materials and expect students to complete tasks independently. Although the transition to online learning may have also brought about the notion of greater student autonomy, it created, instead, new difficulties and different experiences compared to past lessons. An example is Awan uploading an overwhelming amount of material on a new topic, the mock job interview, in a single post.
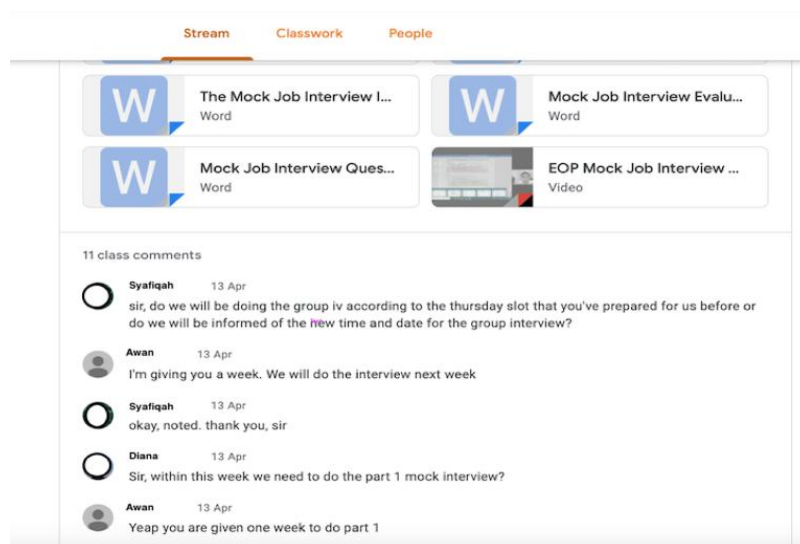
Figure 2: Online learning materials

Figure 2 illustrates two key issues. First, information delivery became unstructured in the fully online learning modality, as entire topics that had once been taught over several lessons were compressed into single online posts. Second, the absence of follow-up lessons or tutorials implied that students were expected to study the materials independently and attain the required understanding on their own.

Overall, the findings illustrate two contributing factors to one-way lesson delivery in the online learning environment: a mismatch in expectations between instructors and students, and the unstructured nature of virtual learning. While instructors assumed students would gain greater autonomy and engage actively, students primarily aimed to pass the course and depended on instructors for guidance. This detachment was reflected further in passive participation and minimal interaction during online lessons. Another form of detachment appeared in the way the physical environment shaped online learning, for instance, Awan's lack of eye contact during teaching, and students logging in but not paying attention, which illustrates the loss of structure in traditional face-to-face lessons.

5. Discussion
The two themes discussed in this paper showed a clear shift from teacher-centered approaches, characterized by feedback and affirmation in face-to-face lessons, to expectations of student autonomy in fully online learning. Traditional classroom instruction included teacher-led discussions, topic introductions, comprehension checks through prompt questions, homework or class assignments, and a summary at the end of each lesson (Strømme & Furberg, 2015). The IRF structure, which is often used to represent 'good' classroom interactions, reflects this organization of teacher–student exchanges. Despite its limitations, the IRF framework supported student progress through structured dialogue, guided inquiry, and feedback loops (Mercer et al., 2009), while also modeling interactional norms for peers (Shi et al, 2024).

However, the transition from in-person to online instruction disrupted this interactive structure. Findings reveal that teachers often shared all materials—lesson notes, slides, homework instructions, and video recordings—in a single online post. This practice contrasts sharply with face-to-face lessons, where topics were spread across several sessions. The results, furthermore, indicate that teachers assumed students would be able to independently explore and complete course materials, although there were no precise mechanisms for interaction, clarification, or follow-up. For instance, Awan required students to form groups of more than five to request tutorials, while Bayu stated that students could reach out for support but did not specify how or when. These practices reveal implicit expectations of autonomy without sufficient scaffolding or explicit guidance.

Students' difficulty navigating this independence can be understood through their prior learning experiences, which were more structured and teachers directed. As university students, many were still transitioning toward self-regulated learning (Poehner, 2008). Having been educated in systems that emphasized instruction and authority (Wursten & Jacobs, 2013), they faced conflicting demands—between traditional dependency on teacher guidance and the new expectation of self-directed learning. This tension is not unique to Malaysia; similar challenges are experienced across cultural contexts in which students value teacher affirmation and emotional support (Furberg, 2016; Silseth & Furberg, 2024). Hence, the shift to online learning brought with it not only technological change but also pedagogical and cultural disruptions.

Building on these findings, this study discloses a broader implication: The transition to online learning aligns with global aspirations for learner-centered education but reveals significant gaps in institutional readiness and pedagogical adaptability. Instructors uploading lesson materials in bulk reflects limited training or support for instructors to design scaffolded, interactive environments. The lack of systematic training in online facilitation and student-centered approaches has led to transmissive rather than dialogic practices, which reaffirm that online learning spaces were treated as information depositories instead of platforms for collaborative learning (Meng et al., 2024).

Technology-mediated learning is often assumed to foster student independence. However, this study demonstrates that structural and cultural constraints can suppress learners' ability to exercise agency. The rapid transition exposed a gap between technological affordances and the pedagogical scaffolds needed for agency to develop meaningfully. Without intentional design for dialogue or reflection, students are positioned as passive recipients of digital content rather than co-constructors of knowledge. Institutions and educators must, therefore, design environments that not only deliver content but also promote learners' authorship and control over their learning.

Moreover, the assumption that students can manage learning tasks independently overlooks the cultural and institutional realities of Malaysian higher education, where hierarchical teacher–student relations remain influential (Park, 2000; Wursten & Jacobs, 2013). Students' hesitance to seek help or question authority is

less a sign of low motivation than an outcome of embedded cultural norms and institutional practices. Thus, autonomy was demanded but not adequately supported. As a result, online teaching and learning may fall short in the absence of a holistic framework that integrates cultural awareness, institutional support, and pedagogical design. Ultimately, improving online learning readiness requires investments in digital pedagogy training, clear support mechanisms, and culturally responsive practices that balance autonomy with guidance.

Finally, the findings underscore the importance of institutional ecosystems that mediate how teaching and learning adapt to crisis-driven digital transitions. Institutional readiness extends beyond technological infrastructure to include pedagogical resilience, professional growth, and reflective practice by educators (Meng et al, 2024). During the shift, the lack of structured support systems and coordinated guidance fostered a reactive rather than proactive response.

To move forward, higher education institutions should embed socioculturally responsive frameworks in their training and policy structures that account for hierarchical learning cultures and local academic ethos. For instance, universities are encouraged to implement a purposeful blended learning model with an optimal balance that involves face-to-face instruction for topics that require closer guidance and deeper understanding of subject matter, while the online learning component should focus on reinforcements such as formative assessments, private or smaller group consultations and peer discussions. Such alignment will encourage a gradual shift from compliance-oriented to critical, collaborative, and self-regulated learning cultures.

6. Conclusion
This study achieved its aim of identifying which aspects of mediated tool resources enhance or hinder effective learning and instruction and ultimately suggests that face-to-face interaction remains central to meaningful educational experiences. In such settings, meaning-making unfolds through a fluid interplay of language, culture, and shared presence—processes that enable immediate feedback, negotiation of meaning, and collective problem-solving (Mercer & Littleton, 2007).

Conversely, while fully online learning proved valuable for sustaining instruction during crises, it often limited these interactional dynamics of task completion and failed to foster more profound understanding. From a practical perspective, teachers must move beyond content transmission toward cultivating online spaces that replicate dialogic engagement through guided discussions, reflective tasks, and scaffolded peer collaboration. Institutions should invest in structured digital pedagogy training, technical support, and continuous professional learning to help instructors adapt their face-to-face practices to online modalities.

Meanwhile, policymakers can promote sustainable, hybrid learning ecosystems by aligning digital education policies with sociocultural realities that emphasize inclusive, autonomy, and equitable access to technology. In conclusion, while technology offers opportunities to extend learning beyond physical boundaries,

its effectiveness depends on the capacity of educators and institutions to integrate it meaningfully. Future readiness to ensure equitable learning opportunities in education lies not in choosing between face-to-face and online modalities, but in designing pedagogical systems that combine the best of both approaches. Future research should explore teaching and learning activities in larger-scale investigations through a sociocultural lens to closely evaluate the intricacies of mediations between humans and human–tool interactions.

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