

# ***STRATEGIES FOR TRANSFORMING STUDENT REFLECTION IN ONLINE LEARNING ENVIRONMENTS: TRANSACTIONAL DISTANCE THEORY LITERATURE REVIEW***

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Student reflection can take on various roles, such as evaluating one's progress, setting and evaluating goals, regularly reviewing one's progress, giving and receiving constructive support and feedback, and effectively communicating and assessing one's learning and experiences (Webb & Scoular (2011). Research indicates that facilitating student reflection is an essential teaching practice, leading to increased academic performance, a deeper understanding of content, and improved student engagement (Ash et al., 2005; Cavilla, 2017; Lew & Schmidt, 2011). The following literature review will serve as a reminder of what should be considered when designing student reflection opportunities in hybrid or fully-online learning environments through the lens of Transactional Distance Theory (TDT).

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engagement (Ash et al., 2005; Cavilla, 2017; Lew & Schmidt, 2011). In addition, regular reflection provides learners and instructors with opportunities to engage in regular dialog and reflection to bridge the psychological or transactional distances that emerge in an online learning environment. The following literature review will serve as a reminder of what should be considered when designing student reflection opportunities in hybrid or fully on-

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### **WHAT IS TRANSACTIONAL DISTANCE THEORY?**

Michael Moore developed transactional distance theory (TDT) as “a basic analytical framework for understanding distance education systems” (Gorsky & Caspi, 2005, p. 2). Moore (1993) aimed to explain the impact of the psychological distance experienced between instructors and learners across distance learning environments, known as transactional distance. The early stages of TDT initially described the psychological and communication gaps created in distance learning environments between instructors and learners; however, the theory has emerged over time to provide a lens for understanding the complexities of online learning environments and comprises the interaction between three components: *structure*, *dialogue*, and *autonomy*.

The *structure* of an online learning experience is based on the deliberate arrangement of goals, methods, materials, and assessments to encourage student participation in a lesson (Moore, 1993). Online learning environments require elements of *dialogue* or interaction between an instructor and learner, which can occur through asynchronous and synchronous methods and tools (Moore, 1993).

Dialogue and structure influence the perceived psychological or transactional distance within a course. In other words, how conversations and interactions are organized affects how distant the learner feels from the instructor. For example, an online course that emphasizes structure over dialogue tends to create a greater sense of transactional distance between the learner and the instructor. Conversely, a course that prioritizes dialogue over structure reduces the transactional distance.

Subsequent iterations of TDT placed increased significance on learner autonomy concerning the structure and dialogue within a course (Delgaty, 2019). The presence of vary-

ing degrees of structure and dialogue within an online setting may require learners to exert more *autonomy*, prompting them to exert more control over their learning through voicing opinions, making choices, and taking responsibility (Moore, 1993). According to transactional distance theory, the effective functioning of a distance learning environment relies on the interaction and integration of each of these components. With the increasing prevalence of hybrid and fully online learning in primary, secondary, and post-secondary classrooms, educators can utilize the following strategies to harness the potential of technology and overcome the distance between learners and instructors.

### **THE COMMUNICATION MEDIUM MATTERS**

Renowned Canadian author and philosopher Marshall McLuhan explored the profound impact of communication media, famously stating, “The medium is the message” (McLuhan & Fiore, 1967, p. 1). Various mediums encourage and facilitate communication between learners and instructors in online and hybrid learning environments, which include discussion boards, video and audio recordings, instant messaging, and synchronous video chat. For instance, technological advancements have enhanced the writing process, as students can instantaneously develop and share documents, collaborate with peers, receive immediate feedback, and make revisions quickly. Assistive technologies and speech-to-text tools like Google’s Voice Typing feature allow students to construct written reflections using their voice.

However, not all communication methods are equally effective and can be utilized to “manipulate” the “psychological” or transactional distance experienced between instructors and learners (Moore, 1993, p. 23). Online discussion threads have traditionally been a popular online discussion tool because they allow “students to express their thinking, reflect on their learning, and engage in self-regulation strategies” and positively impact self-regulation, metacog-

dition, and overall confidence (Martin et al., 2017, p. 538); However, research indicates that positively utilizing video correlates with student achievement, self-perception, social presence, and engagement (Borup et al., 2013; Clark et al., 2015; McClean, 2016; Oliveira, 2021). For instance, in one study, students' perceptions indicated that asynchronous video discussions fostered increased student dialogue and communication (Borup et al., 2013).

While Learning Management Systems (LMS) offer internal tools for recording and uploading media, several external applications provide additional features to enrich dialogue and asynchronous communication. For example, free video recording tools such as Flip, Loom, and Voice Thread introduce an extra dimension to video discussions by enabling students to create concise video reflections and receive feedback from instructors and peers.

Although alternative ways of participating are practical, instructors should be aware of the diverse needs of students. Dixon and Pelliccione (2005) discovered that experienced professionals in a workplace setting experienced intimidation towards the tools utilized in an online course and collaborating with others. Stein et al. (2009) found that many adult learners still need to learn the nuances of online learning and the technology needed, which may create barriers to the learning process.

Hence, educators must carefully assess the impact of integrating particular tools and teaching approaches on students' reflective processes. For instance, when considering reflection methods, would students benefit more from engaging in a discussion board, uploading a picture of a sketch note, or creating a video?

Additionally, the question arises whether students should have the flexibility to choose between collaborative or individual assignment completion. This choice can significantly influence the depth and quality of their reflective experiences. Tools like Google and Microsoft offer a versatile platform for facilitating collaborative learning experiences.

Moreover, identifying and implementing assistive technologies in the online learning

environment becomes crucial to eliminating potential barriers to learning. By leveraging suitable assistive tools, educators can empower all students to excel and thrive in their educational journey.

### ***THE IMPORTANCE OF INSTRUCTOR INVOLVEMENT***

Facilitating an inclusive and open conversation is pivotal in nurturing a culture of learning and introspection. According to Moore (1993), increased dialog between the instructor and learner reduces the amount of transactional distance experienced by students. Rankin and Casey (2022) underscored the significance of instructor involvement, emphasizing that when instructors actively participate in dialogue with learners, working together to establish learning objectives and reflecting on the learning journey, it leads to heightened student engagement and enhanced academic performance. However, communicating with students across online learning environments can make constant communication tedious.

Instructors can employ various valuable tools to balance offering high-quality feedback and promptly delivering it. Among these tools are canned comment banks and video and audio feedback, which have proven to be effective strategies. Modern learning management systems often include canned comment features, enabling instructors to provide standard feedback to students quickly and assisting them with tasks like mastering APA formatting or avoiding grammar errors.

Furthermore, video and audio feedback have emerged as powerful alternatives to written feedback, allowing instructors to offer more detailed guidance in a shorter time frame. Utilizing tools like Screencastify, instructors can employ annotation features to write, highlight, and provide constructive feedback to students without altering the original assignment itself. This combination of versatile feedback methods ensures a more enriching learning ex-

perience for students while easing the burden on instructors.

### **THE IMPORTANCE OF STRUCTURING STUDENT THINKING**

Stein et al. (2009) suggest that instructors intentionally create regular reflection opportunities to enhance their influence on student learning. When the process of reflection becomes monotonous, students might overlook its significance and choose to avoid it altogether, possibly relying on alternative methods, such as artificial intelligence. Advancements in technology have made it possible for students to input a writing prompt into Chat GPT and receive a proficiently written response within seconds. Chat GPT summarized the concluding paragraph of this article. Therefore, it is vital to help students comprehend the value of reflection and provide them with various options for reflecting on their learning.

In their study, Rusche and Jason (2011) emphasized the importance of critical self-reflection in improving students' critical thinking skills, promoting self-knowledge, and facilitating the examination of personal beliefs. Consequently, the frequency and structure of student reflection orchestrated by instructors significantly impact cognition (Rusche & Jason, 2011). The Thinking Routine Toolbox (<https://pz.harvard.edu/thinking-routines>), created by Harvard University's Project Zero, is a valuable resource for this endeavor. This comprehensive toolbox includes a variety of thinking routines, protocols, and thought-provoking questions specifically designed to enhance the visibility of learning.

Thoughtful consideration must be given to the structure of student reflection. Therefore, instructors must consider the most suitable tool for the task and whether utilizing technology can significantly impact the effectiveness of the reflection process. Valuable resources like Project Zero's websites can offer guidance and support in structuring your thoughts, aiding

you in achieving a more meaningful and insightful reflection.

### **CONCLUSION—BY CHAT GPT**

In concluding this article, it is essential to showcase Chat GPT's summarization and conclusion capabilities. This demonstration emphasizes why instructors should thoughtfully organize reflections in a manner that benefits and engages students in the learning process. However, this could be interpreted as a warning to instructors to reconsider how student reflection occurs because, much like the example below, students could use Chat GPT to bypass reflection altogether.

*In conclusion, student reflection is pivotal for promoting academic growth and fostering engagement in the learning process. Educators can create impactful and inclusive learning environments by thoughtfully integrating technology, considering communication mediums, actively involving instructors, and structuring reflection opportunities effectively. Embracing technology, such as video discussions and assistive tools, enhances student engagement and communication. Mindfully selecting communication mediums helps bridge the psychological gaps between instructors and learners. Instructor involvement through open dialogues and timely feedback nurtures a culture of active learning. Structuring reflection enables students to gain deeper insights, develop metacognitive skills, and foster personal growth. As educators refine their approaches to student reflection, they unlock the full potential of every learner's educational journey. (Chat GPT Monday, July 31, 2023)*

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