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## 4.2.1 Flipped Learning

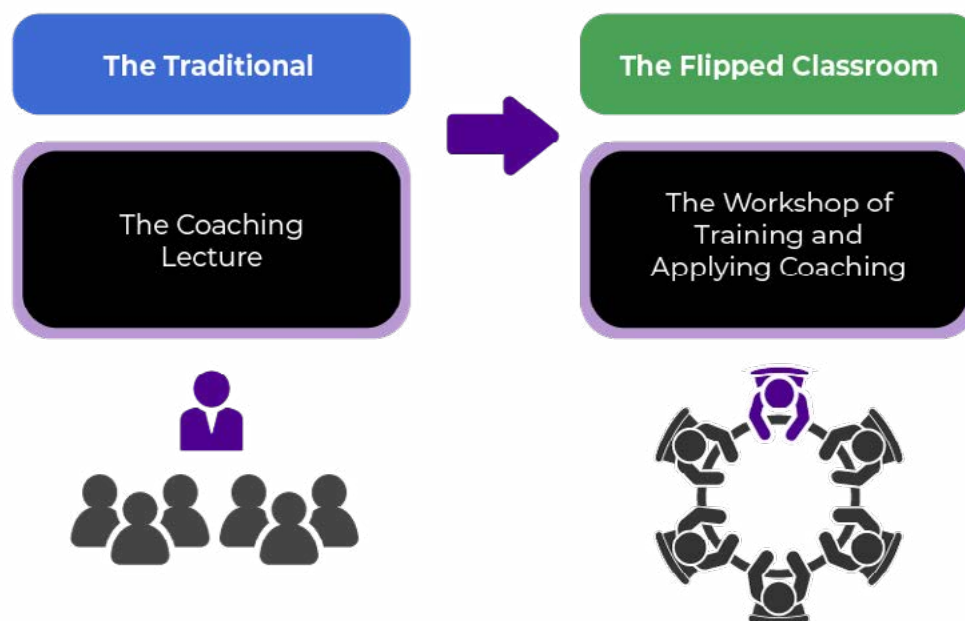
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Flipped learning is an instructional approach that flips the traditional classroom model. In this method, students are assigned pre-learning materials to review before attending class. This allows the in-class time to be dedicated to interactive activities, discussions, and practical exercises, where students can apply their knowledge, ask questions, and engage in collaborative learning. By shifting the delivery of content outside the classroom, flipped learning promotes active engagement and deeper understanding of the subject matter. In this chapter, we will explore the basics of the flipped classroom method, its key principles, benefits, and strategies for implementation. Additionally, we will provide a selection of recommended reading materials for those interested in further exploring this pedagogical approach.



Flipped learning, also known as the flipped classroom, is a pedagogical method that flips the traditional approach to teaching and learning. In this method, students take on an active role in their learning, while teacher-led instruction is delivered in a different way (Figure 16). In a flipped learning environment, students engage with the course material independently before attending the face-to-face class. They prepare for the class by studying the assigned materials provided by the teacher, gaining familiarity with the subject matter (Jensen et al., 2015; McLean et al., 2016; Sun & Wu, 2016). This approach allows for more interactive and engaging in-class activities that promote deeper understanding and application of knowledge.





**Figure 17.** The shift from the Traditional Learning to the Flipped Learning.

Flipped learning utilizes technology-based resources, such as pre-recorded lectures, instructional videos, or reading materials, as ideal pre-learning materials (Sultan, 2018). Additionally, students can engage in short tests or quizzes prior to attending classes to assess their understanding of the topic and receive valuable feedback (Kim et al., 2021). This method empowers students to be active and self-directed in their learning. By providing pre-learning materials in advance, students can immerse themselves in the content at their convenience, in any location, and as frequently as needed to grasp the concepts (McDonald & Smith, 2013). This approach allows students more time to absorb new information, which contrasts with the traditional lecture format where immediate application of concepts is often expected (Cotta et al., 2016).

With the flipped learning approach, students can leverage their existing familiarity with the content during face-to-face teaching sessions, whether working independently or in small groups, to reinforce their understanding and apply the concepts in practical activities (Jensen et al., 2015; Missildine et al., 2013; Vajravelu, 2020). Classroom activities

in the flipped model can involve engaging in case discussions, diagnostics, and dispositions (Riddell et al., 2017), where the teacher may ask questions for students to discuss and vice versa. It can also include watching videos (Chyr et al., 2017) and utilizing clickers for interactive participation (He et al., 2016). Essentially, the role of the teacher in flipped learning is to facilitate and encourage students to actively engage with the topic (Sun & Wu, 2016).



**Flipped learning allows students more time to absorb new information, which contrasts with the traditional lecture format where immediate application of concepts is often expected.**



Flipped learning represents a shift in pedagogical approach and presents various requirements for teachers. From the teacher's perspective, implementing flipped learning necessitates a grasp of the pedagogical principles underpinning the approach and the teacher's role as a facilitator and educator (Hao & Lee, 2015). Creating a successful flipped learning course demands meticulous planning. It is essential for the course design to incorporate a well-structured course plan that outlines the sequence of activities, and for the teacher to actively foster interaction throughout the course. (Colomo Magaña et al., 2022.)

Flipped learning has demonstrated significant benefits compared to traditional teacher-led lectures. While the level of knowledge acquired may be similar regardless of the method used (Riddell et al. 2017, Smallhorn, 2017), flipped learning has been shown to improve students' grades (Cotta et al., 2016; Estrada et al., 2019; Ferreri & O'Connor, 2013; Kim et al., 2021; Kiviniemi et al., 2014; Vajravelu et al., 2020). However,



despite the similarity in learning outcomes, the benefits of flipped learning are well documented. Students engaged in flipped learning exhibit higher levels of engagement, benefit from peer interaction, and receive more guidance and support from teachers (Smallhorn, 2017; Sun & Wu, 2016). Flipped learning also positively impacts attendance in class (Chyr et al., 2017) and enhances students' self-confidence (Estrada et al., 2019; Smallhorn, 2017).

However, while flipped learning has shown numerous benefits, it is important to acknowledge that not all students are equally satisfied with this teaching method. Some students express a preference for traditional lectures (Missildine et al., 2013; He et al., 2016), as they do not require additional time for pre-assignments (Missildine et al., 2013, Simpson & Richards, 2015). Difficulty in adapting to the new teaching method and a lack of understanding of its benefits can also contribute to student dissatisfaction. Furthermore, some students may struggle with independent studying of pre-reading material. (Missildine et al., 2013; Simpson & Richards, 2015.) However, research indicates that teachers can positively influence students' attitudes towards flipped learning by providing clear explanations of the methodology and facilitating engaging activities throughout the course (He et al., 2016). Despite these challenges, flipped learning has potential to offer enriching educational experiences for both students and teachers. In general, students have found traditional classroom lectures less attractive and engaging compared to active learning methods. (Hyun et al., 2017.)

In the DigiCare project, we implemented the flipped learning methodology in our pilot programs. We introduced online pre-reading materials and video content on the 5A's and GROW coaching models, which were new concepts for Asian healthcare students and teachers. By allowing students to familiarize themselves with these concepts before class, they were able to make the most of their classroom time for further exploration and refinement of the concepts with the guidance of their teachers and collaboration with their peers.

## Read more about Flipped Learning

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