

What is the De Facto? Implementation of the Flipped Classroom Approach in Higher Education: Veteran Professors' Experiences Over Multiple Years

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Abstract

The flipped classroom approach is an effective alternative to traditional teaching methods. However, further research is necessary to understand its long-term impact. This qualitative research study delved into the prolonged implementation of flipped learning by conducting interviews with professors from various academic institutions across different countries. The study focused on professors from STEM and Education Sciences disciplines with extensive experience in implementing the flipped learning method and a significant body of scholarly work. The study's findings indicated that educators view this approach as valuable for providing feedback and fostering active learning strategies. However, challenges to its implementation include entrenched traditional teaching cultures, resistance to change, and unprepared students. The research also revealed a lack of theoretical guidance for this method and recommended practical strategies for its effective implementation. The study highlights the importance of providing effective guidance for educators to successfully implement flipped learning and its influence on higher education policies.

Keywords: Flipped classroom, flipped learning, higher education, long-term implementation, qualitative study

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The popularity of the flipped learning (FL) approach in higher education has sparked intellectual discussions on research gaps. Despite the exponential growth of research on implementing flipped classrooms (FCs), questions have been raised about the reliability of short-term FC interventions and small sample sizes (Cevikbas & Kaiser, 2022), given the need for longitudinal studies. This gap has created a pressing need for further studies to address such fragmentation and understand the prolonged impact of the FC (Kapur et al., 2022). While a limited number of studies have reflected on multi-year flipped learning implementation, there is an urgent need for more research in this area, which led to the undertaking of this study.

Overview of Relevant Literature

As per Birgili et al. (2021), FL is a movement, not just a method that aims to establish a teaching approach that prioritizes digital learning over physical classrooms. The increasing number of higher education (HE) students highlights the need to modernize traditional, in-person instruction. The flipped approach offers a pedagogical alternative to conventional classroom methods to engage students in higher-order thinking (Bishop & Verleger, 2013; Bergmann & Sams, 2012). Essential skills for contemporary HE, such as communication, self-paced learning, and interactive instruction, are crucial. Consequently, FL is no longer just a passing trend but a vital requirement (Bishop & Verleger, 2013) as it equips students with such skills.

The FL approach is often considered a subtype of blended learning. In a typical FC setup, students engage in pre-class learning activities such as watching videos, reading materials, or doing online exercises. This frees up more time for collaborative learning tasks during in-class periods (Abeysekera & Dawson, 2015; Bishop & Verleger, 2013). Although there were early publications on FL (Lage et al., 2000), it was not until 2012, when Bergmann and Sams coined the term “Flipped Classroom” that it became more widely known. Before this, empirical articles on flipped pedagogies were scarce. The Flipped Learning Network (FLN) then defined the FC as a pedagogical approach in which direct instruction moves from the group to the individual learning space. This creates a dynamic, interactive learning environment where educators can guide students as they apply concepts and engage creatively in the subject matter. The FC approach is based on four guiding pillars: Flexible Environment, Learning Culture, Intentional Content, and Professional Educator (F-L-I-P).

The active learning experiences developed in an FL environment depend on various roles, uses, and needs. According to Fung et al. (2021), the most distinctive characteristic of the FC is not just the reverse order of the lecture and homework sequence. It aims to improve learning practices and maximize class time by focusing on student-centered interactive activities and individual scaffolding (Bergmann & Sams, 2012). To achieve this, learners must be active constructors of knowledge, use cooperative and collaborative learning to reflect on their learning, and gain meaningful experiences to enhance their overall learning (Erbil, 2020). This approach is rooted in classic educational didactic models and theories, building on the works of Piaget and Vygotsky (Bishop & Verleger, 2013) and integrating learning theories such as constructivism, behaviorism, cognitivism, social learning theory, and connectivism. The FL method, as such, has the potential to offer more than just an alternative approach but rather a value-driven method driven by the timely fusion of technology and pedagogy, prompting a re-evaluation and necessary transformation process (ElGamal, 2022).

In recent years, several qualitative reviews have been published to synthesize the growing literature on FL (O’Flaherty & Phillips, 2015; Zainuddin & Halili, 2016; ElGamal, 2022). These reviews have concluded that FL is associated with increased student achievement, motivation, and engagement. For example, studies have shown that flipped learning effectively enhances students' critical-thinking skills, problem-solving abilities, and overall academic performance. Additionally, FL has increased student engagement and motivation, allowing students to participate actively in their learning.

FL's effectiveness may be underestimated in current studies, which primarily focus on instructors' initial attempts at implementation. According to Lee (2023), only a few studies have looked at the long-term effects of FL. Some research suggests that FL requires a shift in teaching approaches and cultural norms. Therefore, further study of multi-year FL implementations could reveal the extent of these pedagogical and cultural shifts (Lee, 2023). More research is needed to accurately assess its benefits as it continues to be refined. A comprehensive and longitudinal study covering multiple courses requires time to understand FL implementation and determine its effectiveness over time (Cevikbas & Kaiser, 2022; Kapur et al., 2022).

On the other hand, FL is built on multiple theoretical foundations. The prevailing theories surrounding FCs are cognitive load theory and constructivist learning theory (Sweller, 2020). While these classrooms are widely adopted in higher education to support student-centered learning, they have faced criticism for lacking a clear theoretical framework (Koh, 2019). This critique is supported by research demonstrating the effectiveness of active learning without a clear distinction between active learning and the flipped classroom model (Bredow et al., 2021). This study aims to address these limitations and inspire further research. One of its key findings is to identify the theoretical and practical guidance necessary for implementing FCs. Many articles discuss the FC approach, but only a few provide practical guidance for its implementation. This study analyzes expert insights to guide the implementation of FCs in higher education and evaluate their impact. It addresses critics' perspectives on the unique aspects of FCs and explores design decisions, pedagogical lessons, and the role of institutions in practical implementation. The study examines the FC approach in higher education (HE) from various angles, providing critical insights into its theoretical and practical implications.

Research Design and Method

The study adopts a qualitative approach to investigate the experiences of expert professors who have implemented the FC method over several years of trial, error, and modification. Specifically, it uses interviewing as one of the primary methods for data collection and analysis in qualitative research (Sproul, 1988; Maxwell, 2009). Using a qualitative research approach, the study aims to gain a comprehensive understanding of the design and implementation of the FL approach in higher education. Qualitative research allows for capturing changing trends and tracking experts' shifting attitudes. Its flexible nature encourages discussion of experiences and changes, which leads to widely accepted findings across various disciplines. Meanwhile, qualitative education research is widely accepted due to its comprehensive and rich nature, particularly with text-based information such as narratives and insights (AlYahmady & Al-Arabi, 2013; Glickman et al., 2007). Furthermore, interviewing is an efficient method, mainly

when analyzed using the interpretive approach, which seeks to make sense of participants' qualitative experiences by identifying commonalities in interview content (Maxwell, 2009). The interview research design allows researchers to ask immediate follow-up questions as needed, which is impossible with other data collection methods. This current exploratory study uses this capability to gain a deeper understanding of the general and distinctive components of the FL method. Mainly, the study addresses the research questions discussed in the coming section.

Research Questions

The researcher started the research process with an overarching question: What do expert/veteran professors tell us about their experiences with the long-term implementation of flipped classrooms in the context of higher education? However, this overarching question was guided by the following five sub-questions, which showed the assembly of generated themes.

1. What is the unique value of flipped learning implementation in higher education?
2. How does the flipped classroom operate within the higher education system? How can it induce change in the higher education culture?
3. What design decisions are needed for the effective implementation of the flipped classroom?
4. Is the flipped learning guided theoretically and practically? In what manner?
5. What institutional support is provided and required for the flipped classroom?

Sampling and Data Collection

In this qualitative study, 13 professors from HE institutions across four continents were recruited and interviewed to represent faculty from different parts of the world. The study found that expertise was more easily identified in Asia ($n = 5$), while Turkey ($n = 4$) provided a unique location in Europe and Asia with a large number of publications (El Gamal, 2022).

Recent research shows that the purposive sample, which is selective, is more efficient (Campbell et al., 2020). Therefore, a mixed non-probability purposive snowball sample of expert professors with extensive experience implementing FCs or with publications in the field was used to select the participants. The sample included professors from STEM and education sciences disciplines, as most published research on FL in the HE context focuses on these two disciplines (El Gamal, 2022). A chain of nominations was created. The first wave of expert invitations went out on January 25th, 2023, which led to a second wave of nominations and referrals from the initial wave of professors. The second wave was distributed on March 13, 2023. By the cutoff date of April 20, there were ($n = 20$) responses, which eventually resulted in ($n = 13$) interviews.

The study included 13 professors, nine full professors, and four assistant professors, with an average teaching experience of 12 years. While Braun and Clarke (2021) argue against using saturation in thematic analysis, Subedi (2021) also suggests that researchers have the freedom to choose the participants for qualitative research, which vary from one to twenty participants depending on the depth of information needed and the nature of the inquiry. Therefore, this study achieved sample saturation with 13 participants, which allows for thorough reflection and in-depth analysis according to Fugard and Potts (2015).

Table 1*Geographic Distribution of the Sample*

Country	Participants (n)	Percentage %
China	1	7.69
Egypt	1	7.69
Germany	2	15.38
Hong Kong	1	7.69
Malaysia	1	7.69
South Korea	2	15.38
Turkey	4	30.77
USA	1	7.69
Total	13	100
Participants		

Table 2*Participants' Experience with Flipped Learning*

Experience in years	Participants (n)	Percentage %
3 to 5 years	1	7.69
6 to 8 years	8	61.54%
9 to 11 years	4	30.77

Table 3*Participants' Disciplines*

Department	Participants
Education Sciences (English language teaching) (Mathematics Education) (Artificial intelligence in education)	7
STEM (Physics) (Mathematics and Informatics) (Dental Education) (Statistical research)	6

Compliance with Ethical Standards

All participants completed and signed an informed consent document before the interviews. The study adhered to the ethical standards for human subjects' research established by the American Psychological Association (APA). The interview questions were designed following APA guidelines for content expert projects, focusing only on best practices and educators' experiences in typical educational settings. The participation was voluntary, and the

interview format was non-intrusive. That being said, the questions did not address personal, medical, gender-related topics or past traumas, ensuring the avoidance of sensitive issues.

All participants were adults and expert academicians in their fields of knowledge. Through a debriefing sheet, participants were provided with detailed information about the study's background and guidelines and a contact name, details for inquiries, a privacy notice explaining the anonymity (if chosen), protection of the transcribed data, and how the information would be used. The primary benefit emphasized for their participation was their contribution to the academic knowledge base. Then, they were given ample time to decide on their participation voluntarily. They were also informed clearly of the option to withdraw their data from the study at any time without facing any negative consequences.

The interviews were conducted online using the Zoom application. They were recorded with the participants' written consent and verbal confirmation of their acceptance of being recorded before the interviews took place. Participants who wished to remain anonymous were referred to by pseudonyms using their initials, while all participants agreed to disclose their affiliations and backgrounds. Only two participants chose to share all their information including their names. All signed consent forms are available upon request.

Data Coding and Analysis

Experts were interviewed and their insights were recorded for a qualitative thematic analysis. Approximately 450 minutes of recorded content were cleaned and focused on lessons from long-term FL implementation. The transcription process used manual and assisted methods, such as Otter.ai software. The author's journalism and social sciences expertise ensured reliable interviewing and transcribing.

The analysis involved searching data for common themes that describe the meaning of an experience from the participants' viewpoints. The study considered a range of emergent key themes during an initial open coding. Then, the full transcripts were coded according to preset themes and highly recurrent codes. The QDA Miner Lite Program was used to analyze qualitative data analysis.

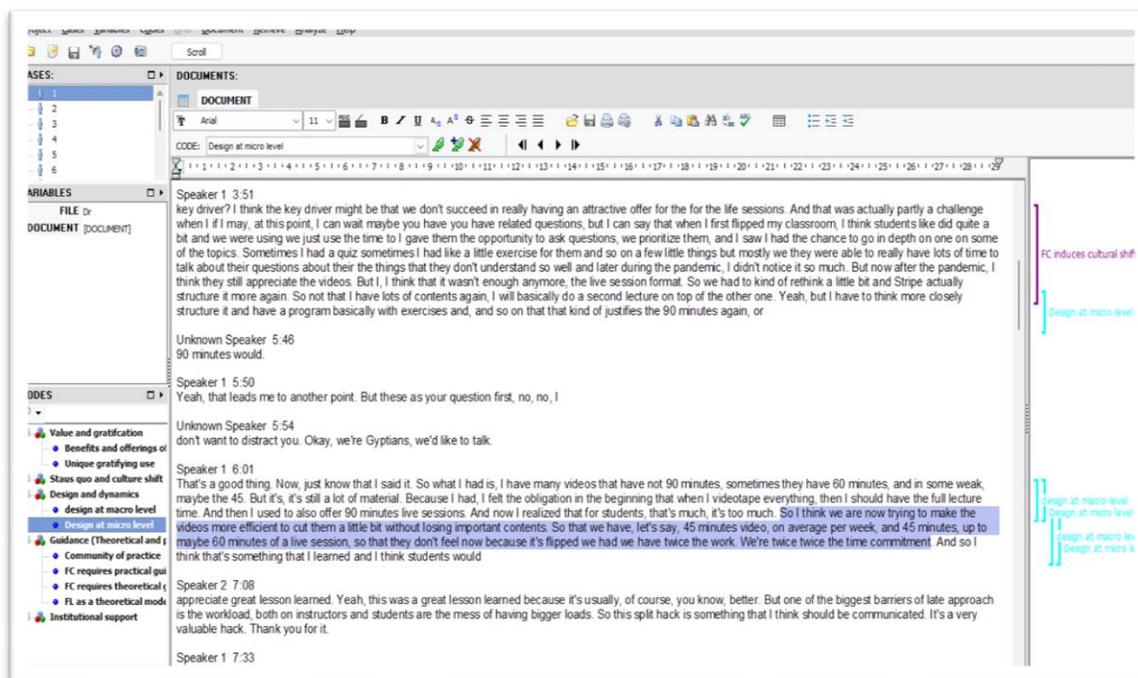
The study aimed to explore participants' experiences with the FC over several years. The collected data was analyzed at the sentence level and coded, with related codes assembled into themes. The analysis revealed five main themes, with several sub-codes within each theme. Interview quotes were presented to support the inferences and experiences identified. The following section provides a detailed presentation of the themes formed from the existing codes. The researcher looked for similarities and differences between the emergent themes from the data and themes identified through literature. One significant contribution of the study was finding convergences and divergences with previous literature results, which validated previous studies and informed the scope of the study, addressing specific literature gaps.

Finally, to establish the trustworthiness of the data, the author employed an audit trail. The audit trail provided step-by-step details about the process of data collection, coding, and analysis, allowing the chance for systematic replication. The following steps sum up the data coding and analysis:

1. The researcher read each transcript to familiarize herself with the data, then re-read using line-by-line analysis to extract and code the participants' experience meanings.
2. The researcher wrote notes in the margins of each transcript to emphasize understanding.
3. The researcher explored and separated meanings into categories and themes, aligning with the research's pursuit of responding to research questions.
4. The researcher presented findings along five cluster themes.

Figure 1

A Snippet of the Coding Screen Extracted from QDA Miner



Results

Themes, Codes, and Description

After conducting a qualitative thematic synthesis, the author identified 13 codes with 32 sub-codes. These codes were then organized into five themes—value and gratification, design and dynamics, status quo and culture shift, guidance (practical and theoretical), and institutional support. Figure 2, structured in the codebook, displays the five themes with their respective descriptive codes and various statistics, such as their frequency, the number of cases in which they appear, and the total number of associated words.

Figure 2*Coding Frequency Tree*

	Count	% Codes	Cases	% Cases	Nb Words	% Words
Value and gratification						
• Benefits and offerings of the flipped	17	6.2%	10	76.9%	640	1.9%
• Unique gratifying use	12	4.4%	9	69.2%	650	1.9%
Staus quo and culture shift						
• FC induces cultural shift(or partial)	28	10.2%	11	84.6%	2030	6.0%
• Flipped method and culture	23	8.4%	11	84.6%	1881	5.6%
• The norm	39	14.2%	13	100.0%	2160	6.4%
Design and dynamics						
• design at macro level	54	19.6%	12	92.3%	4824	14.3%
• Design at micro level	49	17.8%	13	100.0%	3019	9.0%
Guidance (Theoretical and practical)						
• Community of practice	4	1.5%	3	23.1%	77	0.2%
• FC requires practical guidance	12	4.4%	8	61.5%	644	1.9%
• FC requires theoretical guidance or not	10	3.6%	7	53.8%	415	1.2%
• FL as a theoretical model	6	2.2%	4	30.8%	283	0.8%
Institutional support						
• Description of institutional support	13	4.7%	7	53.8%	1058	3.1%
• FL requires institutional support or not	8	2.9%	5	38.5%	764	2.3%

Note. The coding frequency tree in QDA Miner shows code usage count, cases, and word count. “% Count,” “% Cases,” and “% Words” are the percentage of coding, cases, and words related to each code.

Table 4*Codes, Description, and Sub-Codes*

Category/Theme	Code	Description	Sub-codes
Value and gratification	Benefits and offerings of the flipped approach	The benefits of the FC	- Student-centered learning - Engagement - Social interaction - Team-based learning
	Unique gratifying use of FC	The use of the FC method provides unique benefits.	- Outsourcing direct teaching - Extended teaching - Advanced scholarly input - Intellectual autonomy
Status quo and culture shift	FL and traditional learning culture.	The culture of learning and teaching that either accepts or rejects the FC.	- Sage on stage - Teachers assessed for teaching only

			- Active learning initiatives
	De facto—the norm of FL in practice	Common understanding of the FC practice.	- Modus operandi - Video before class - Repeating video lectures in class
	FL inducing a cultural shift	Can FL bring about a culture change? Has FL already brought about a culture change?	- Self-regulated learning - Teacher's role change
Effective design and dynamics	Design at a macro level	The unique design formula for effective FC. Experienced design modifications.	- Readiness assessment and orientation of students - Partial flip
	Design at a micro level	Tips for FC design.	- Backward design - Shorten videos - Structuring the live session - Gamification
Category/Theme	Code	Description	Sub-codes
Guidance (theoretical/practical)	Theoretical frameworks	The theoretical foundation for designing learning experiences of FC.	- Paucity in theory - Suggested theories
	Practical guidance	The practical guidelines and training.	- In-class session training - Periodic plans' modification - Community of practice
Institutional support	Institutional support provided	What kind of support is required? What kind of support is provided?	- Technical support
	Institutional support required	The role and need for institutional support	- Incentive - Commitment

Interviews' Findings

Below are the themes and results developed from analyzing the views and experiences of experts using the flipped learning approach. The experts responded to a set of research questions organized into subheadings.

Unique Value and Gratification

RQ1: What is the unique value of FL implementation in higher education?

In a general sense, the flipped approach has various benefits and advantages. This code or sub-theme focuses on the significant advantages of the FC model in higher education. Expert interviews revealed that the FL approach basically aligns with the constructivist notion, and if implemented correctly, it promotes the student's role in the learning process. “Student-centered learning enhances inverted class offerings. If faculty members see its effectiveness, they may implement it long-term,” Prof. Jihun Lee, Professor of Dental Education, explained.

The benefits of active learning and the FC approach often overlap, with student engagement being a significant advantage of the latter. All experts interviewed agreed that increased engagement is one of the primary benefits of the FC approach. Prof. SS explained that FC (presumably a form of interactive learning) is more enjoyable and engaging for students. This is because attention spans are becoming shorter and shorter. The interviewed professor believes that expecting students to remain attentive and engaged during an hour and 15-minute classroom session is almost impossible. Other expert professors demonstrated situations when they employed the FC: most of the class was engaged compared to the traditional class. Dr. TL shared her experience in a class of pre-service teachers, as she noticed that before class, students actively shared their thoughts on the discussion board and were engaged in discussions, presentations, and peer comments during class.

Finally, in the FC, instruction is said to move from extrinsically motivating (teacher-centered) to intrinsically motivating (student-centered) with guidance from the teacher. As such, the learning experience with engagement and self-motivation in the center could also promote collaborative learning and “.....enriches team-based learning (TBL), which is crucial to some disciplines such as STEM,” Prof. Lee said and (n = 7) of the interviewed experts agreed.

When asked to express their views regarding the distinct gratification (satisfaction and fulfillment) of employing the FC method, experts took some time to gather their thoughts. This pause for reflection was due to the difficulty of articulating a single gratification that only the FC method offers, given the similarity between the impacts of the FL approach and other blended and active learning approaches. Nevertheless, experts agree that one of the most satisfying aspects of the FC method is the ability to outsource direct teaching, which aligns with the philosophy behind the approach. Professor Dr. Christian Spannagel, a renowned expert in Mathematics and Computer Science Education, humorously sparked a debate by stating that lectures are nowadays “a waste of time.” He believes promoting more student-student and teacher-student interaction and outsourcing direct teaching are the primary uses of the FC.

Additionally, 11 experts believed feedback is a vital benefit of the FC. Constructive feedback can take time to impact, and the in-class time provided by the FC approach gives teachers the perfect opportunity to provide feedback to students on their work and learning processes. This incremental process allows students to master concepts, self-audit, modify, and enhance their learning experience. Prof. Spannagel observed how the FC approach provides more high-quality feedback during class or teacher-student interaction. A display of a list of sub-codes and quotes reflecting on experts’ views and interpretations of the “unique gratifying use of flipped approach” sub-theme is shown in Table 5.

Table 5*Unique Gratifying Uses of the Flipped Approach*

Perceived gratification	Count	Representative quotes
Extended teaching	12	<i>“Class time will extend a double dose of teaching leading to deeper learning.” Prof. Spannagel</i>
Constructive feedback	11	<i>“Help students in smaller steps so they understand the material and stay oriented.” Dr. ZZ</i>
Focused Learning	10	<i>“Teaching alone is not enough; FL emphasizes understanding rather than memorization. By prioritizing the learning experience, students can truly comprehend mathematical concepts.” Prof. ON</i>
Self-paced learning	9	<i>“Videos allow students to pause and rewind, ensuring comprehension and preventing missed information compared to traditional lectures.” Dr. EA</i>
Advancing scholarly input	8	<i>“In my view, the teacher has to keep gifted inputs for the students during class time, an input that adds to the basic concept teaching.” Dr. L. CK</i>

Status Quo and Culture Shift

RQ2: How does the flipped classroom operate within the higher education system? How can it induce change in the higher education culture?

When promoting an active learning-intensive method such as the FC method, it is crucial to consider the current state of higher education systems and the learning environment.

Traditional Learning Culture and Flipped Learning. Experts described the traditional learning culture in HE using specific keywords and indicative descriptors such as sage on the stage, spoon-feeding concepts, non-stop lecturing, etc. Prof. ON described learning and teaching habits in her culture: *“...in Asian culture, we are very accustomed to teaching passively, teaching one way and learning passively as such, i.e., heavy learning and teaching habit that we are very comfortable with it.”* Many other expert professors (n = 8) representing different parts of the world and diverse teaching and learning cultures agreed with her comment. Interestingly, ten experts revealed that FC's incompatibility with traditional culture is also rooted in how most faculty define and perceive the FC method (see Table 6).

When asked about the level of acceptance of the FC method in higher education, most experts agreed that the FC method is essentially an extension of many other standard instructional methods based on constructivism. The method encourages engagement and enhances information retention in a more organized way. "...Some professors attempt active learning without a concrete strategy, making it difficult to replicate in other courses or programs. In this regard, FC is an asset to the teaching culture" Prof. SS.

Despite its positive impacts, mainstream HE environments would not invite innovative approaches like FL. The reason for this claim was suggested by (n = 5) experts, who specified that in the traditional learning culture in higher education, professors are primarily assessed for their teaching and research, but being assessed for trying distinguished teaching strategies remains individualistic.

Table 6

Experts' Perception of the Flipped Classroom

FC method	Count (n)	Representative quotes
An instructional strategy/ method	8	"Flipped learning is an instructional approach that can allow more time for you to conduct active learning activities inside the classroom. This is my opinion." Dr. L.CK
Blended learning approach	4	"If you use the search term hybrid learning or blended learning with you, you will retrieve FL" Prof. MA
Delivery method	1	"I would consider FC a delivery method, not an instructional approach." Prof. TA

De Facto of the Flipped Classroom Method. Framing the FC method and its de facto is challenging due to inconsistent definitions in the literature (El Gamal, 2022). Focusing solely on the modus operandi or the FC's operational structure undermines its value. This approach allows for a more comprehensive and practical learning experience rather than simply focusing on operational planning; as Dr. EA implied: "...the learning environment is crucial for effective learning. Well-designed and varied content with different media and tools is essential for engagement. Collaboration and resources are vital for student success." Educators should not feel restricted by the three-phase structure of pre-class, during-class, and post-class, but instead should strive to plan the learning experience as a whole.

Flipped Learning Induces a Culture Shift. It took time to grasp whether the interviewed experts were optimists about FL's ability to induce a culture shift in the traditional HE status quo. Nevertheless, few professors shared exciting observations. For example, Dr. L.CK noted that one potential hurdle was educators' concern about students completing homework before class. This is just one of many challenges associated with the FC method, but he thought "...for FL, teachers should change their mindset. Traditional homework is not perfect, so use LMS analytics to help motivated and unmotivated students." To successfully adopt the FC method, educators must examine their mindset and determine what aspects of traditional teaching culture to keep and what to discard., Dr. L.CK continued.

Another example shared by eight experts was one episode during the COVID-19 pandemic. These experts found it surprisingly more straightforward to implement the FC method in their departments without prior training than introducing it as a new norm after the lockdown ended. Some faculty members initially hesitated to create video lectures and instead recorded live lectures without students in front of a camera. Their previous teaching experience influenced this decision, as Prof. Lee suggested. However, upon returning to the physical classroom after uploading their video lectures to the learning management system (LMS), they concluded that the experience was not worth repeating, as she narrated.

In addition to its academic benefits, experts highlighted the critical role of the FC in enhancing social interaction between students, teachers, and their classmates, which can broaden and deepen students' knowledge. To demonstrate this benefit, Professor MA (who has been implementing FC for ten years) conducted a pilot study to assess the acceptance of the flipped method among graduate students and shared her findings. *She found “meaningful interaction between teacher and teacher, and teaching and student grew higher.”*

Change of Teacher’s Role. One of the recurrent sub-codes, as almost all experts agreed, is that HE culture is generally the same regarding the controlling role of professors in the knowledge transfer process. Experts viewed the acknowledgment of such change in the educator role as crucial to the diffusion of innovative methods such as FL. “... as an educator, it is my responsibility to direct and steer my students through their learning journey while ensuring that they receive constructive feedback to assist them in their growth and development,” Prof. Spannagel explained.

In the same context, some experts were also skeptical about the feasibility of an entirely flipped university model, with only one advocating for it and one believing that a competence-oriented approach is more critical. Prof. Spannagel argued “...the HE needs a competence-oriented university with diverse social, collaborative, and active learning methods. An inverted classroom approach with many micro-methods can provide this.” In addition, the cultural differences among the experts interviewed posed a challenge in assessing whether FC could successfully bring about a cultural shift towards a new norm. The extent to which people resist change differs across various regions, and students' attitudes can also influence this process. Dr. L.H. believes American professors, for instance, emphasize teamwork and innovation, while collectivist cultures tend to have a different approach.

Self-Regulation. This is among the highly recurrent sub-codes. Experts (n = 10) believe promoting FC will only be less challenging if students are trained or motivated towards self-regulation. “It is important to consider whether students have the self-regulated learning skills necessary to benefit from a flipped or blended learning approach fully,” Prof. TA. wondered. Strikingly, Dr. EA made an intriguing discovery in her research on using FC in English language teaching. She found that FC does not support self-regulated learning, which is crucial for effectiveness. Dr. EA concurred with the other experts' view that student-centered strategies assist students in customizing their learning preferences, leading to improved learning outcomes. She emphasized that FL allows students to learn without distractions and from diverse sources, fostering academic freedom.

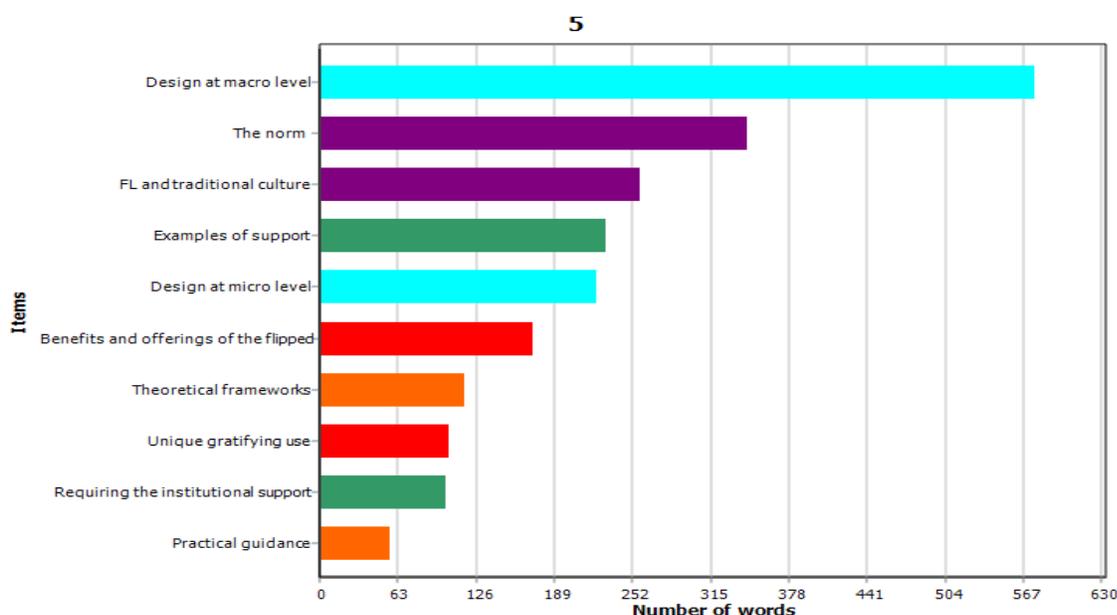
Design and Dynamics

RQ3: What design decisions are needed for the effective implementation of the flipped classroom?

Design and dynamics generated the highest number of words during the interviews. Professors' multiyear implementation has led to a rich portfolio of tips and tricks about FC design. The large number of words (Figure 3) generated improved result comprehension. The design decisions were classified into two categories: macro and micro.

Figure 3

An Example of Code Distribution in a Sample Interview



Design at the Macro Level. This category involves analyzing the feasibility of incorporating FC into specific programs, determining which parts of the curriculum (macro-level) should be flipped and strategizing how to use specific tools to evaluate the effectiveness of the flipped approach. Based on the frequency of mentions in interviews, here are the experts' two most crucial recommendations for the macro-level design of the FC.

Students' Needs Assessment and Orientation. To design a successful FC, analyze contexts and objectives thoroughly. Engage in student dialogue for ongoing design. Dr. L. CK and Prof. MA emphasized this step as crucial in designing an effective flipped classroom. Experts recommend transparency and openness in flipped classrooms. Teachers should provide clear expectations, policies, guidelines, and grades to help students meet class standards.

Partial Flip. This term was the second most commonly mentioned term. It could refer to flipping a portion of the academic year, a specific course, or a program. "FL does not have to be used for the entire academic year or term. Instead, it can be used selectively for challenging topics. When designing a course, it is important to ask which parts to flip," Prof. EA elaborated.

Design at the micro-level. This category involved the design recommendations regarding the activities of the three phases of the flipped classroom (pre-class, in-class, and post-class) reflecting on the micro-level. A few quotes from the participants provide a range of their experiences and recommendations regarding the micro design of FCs.

Structuring Live Sessions. When designing a class, it is crucial to structure both the physical time and live sessions. This experience with FC is vital and cannot be overlooked. “. . . For successful live sessions, an attractive offer is important. If students do not have questions, prioritize discussing topics in detail, conducting quizzes, and encouraging them to bring up any uncertainties. This approach allows students to clarify doubts effectively,” Prof. SS said.

Backward Design. To successfully implement the inverted classroom method in a new class, it is imperative to prepare thoroughly and follow a backward design approach. “I invest ample time in understanding the subject matter and devising a comprehensive teaching plan. This involves organizing the class time and creating multiple tasks and media to facilitate effective student learning outcomes,” Dr. EA explained.

Shortening of Videos. Short videos are essential in motivating students to come prepared to class and create space for deeper learning by exploring the topics covered in the videos. “I learned that we should shorten our videos...to offer a more compact version of the inverted classroom,” said Prof. SS.

Gamification. Interestingly, five experts proposed employing gamification to foster student engagement, especially prior to and in class. For instance, Dr. ZZ suggested merging the FC with other pedagogical approaches to modify the conventional inverted classroom using what he called “gamified FC.” Experts also suggested active learning strategies such as Kahoot and debates were more effective in an FC.

Guidance: Theoretical and Practical

RQ4: Is the flipped learning guided theoretically and practically? In what manner?

Theoretical guidance. Experts (n = 10) agreed that the FC practice was under-theorized. Moreover, all participants agreed that to support teaching and learning effectively, it is crucial to recognize the diverse, flexible learning methods and customize the flipped approach to meet the specific needs of both learners and educators.

Professor Dr. TA emphasized that the flipped approach is “. . . just one of the many strategies that can be utilized to support learning.” This approach significantly improves the chances of achieving the desired learning outcomes and enhancing academic performance and engagement. By integrating learning theories such as scaffolding theory, Bloom's taxonomy, team-based learning (TBL), and the flipped classroom model, educators can implement the flexible classroom method more effectively, Prof. TA elaborated. In addition, employing the self-determination theory to motivate students, explained Professor Dr. Spannagel, can enhance students' autonomy, competence, and social relationships.

Practical Guidance. It is widely suggested that institutional-level training can be beneficial for teachers, particularly for those who are inexperienced. According to most experts, inexperienced teachers should learn from experienced colleagues. In addition, if usability tests are successful, novice teachers may consider following the FC model. Surprisingly, experts (n = 6) indicated that practical guidance is not essential for flipping the classroom. Dr. ZZ believes that there should be flexibility in implementing FC and that it should be tailored to each instructor. Therefore, it is recommended to establish a “Community of Practice” to facilitate knowledge sharing among peers. Prof. C. FK has shared her experience of developing “the new instructor journey,” which aims to familiarize new hires with the FC method from the student's perspective and to teach them how to design the face-to-face component of the course. She also mentioned that new hires receive mentoring from their peers and veteran professors.

Training Inside the Face-to-Face Session. According to Prof. Lee, pre-class activities are easier to design. However, she thinks that in-class sessions require on-site training for teachers to learn and practice hundreds of meaningful in-class activities.

Periodic Modification of Teaching Plans. According to ten experts, continuous assessment is crucial for identifying gaps and areas needing modification. This is because the flipped classroom approach depends on student acceptance and autonomy. Interview findings about the macro-level considerations of flipped classroom design support this idea.

Institutional Support

RQ5: What institutional support is provided and required for the flipped classroom?

The Provided Institutional Support. Experts shared their views about the standard institutional support for implementing innovative teaching methods in general and FL in specific.

Technical Support. The most recurrent sub-code under this theme shows the institutional support for faculty wishing to flip their classes. “The university supports everything: a studio, a video camera, and people who can edit the video lecture. So, faculty members can lecture in front of the camera instead of in front of students and do not bother anything else” Prof. Lee described her experience. Institutions also offer assessments and analytics to monitor student performance outside of class. However, three experts said their universities did not provide the basic technical requirements needed. Professors can get frustrated with pre-class material, like time-consuming videos.

The Required Institutional Support. Institutions must facilitate the formula for the success of this impactful method and incubate the transformation towards effective implementation of FC over time.

Incentives. Unfortunately, most institutions do not offer incentives for innovative teaching methods, according to most respondents. Dr. LH. suggested that institutions encourage innovative teaching methods by incentivizing lecturers who introduce more than just the status quo to the university culture.

Commitment. This requirement refers to the degree to which HE institutions comply with the urge to change into a more student-centric learning environment and realize the value of the flipped approach in successfully achieving this change.

To successfully implement a flipped delivery strategy, one must consider the unique variables of their education system and culture. Additionally, top management support plays a crucial role in determining the success of this approach. It is a top-down commitment to change management. (Prof. TA)

Practical Training. The same opinion is extended among the sample experts of this study, who thought institutions should design cohesive training plans to enable faculty to implement the FC method.

Discussion

The concept of flipped learning, as depicted in the literature, involves reversing the sequence of traditional classroom activities. However, researchers lack consensus regarding a universally recognized definition of the flipped approach (He et al., 2016). Some researchers, including Bishop and Verleger (2013), Lee et al. (2016), and Milman (2012), define FL by emphasizing pre-class activities, materials, and video-recorded lectures. Conversely, others, such as Lai and Hwang (2016), have a more comprehensive definition of FL, encompassing videos and reading assignments, homework problems, and PowerPoint presentations as pre-class learning materials. Therefore, it is crucial to standardize the terminology used to define the flipped approach. This standardization is not just a technicality but a critical step in advancing research in this area. Though the definition of FL is broad and may give the impression of an unstructured classroom, it allows teachers to implement various methods. This study seeks to identify practical concepts for implementing FL, which require tailored implementation and institutional support. The FL shares some important activities with traditional teaching. Experts propose that it is an innovative and efficient approach to higher education.

The research showed that considering extended exposure to the FC method could validate or alter the interpretation of evidence. This is important because the current excitement for FL surpasses the scientific evidence supporting it. The study addressed five main questions about FL's philosophy, application, and implementation factors. Using a qualitative approach, it emphasized recurring themes in existing literature and identified new areas of focus. Below is a summary of the five main thematic findings.

The Value of Flipped Learning

The interviews' findings may have suggested endless outcomes related to the FL method, yet this study primarily focused on the sub-codes or benefits consistently identified over several years of implementing the flipped approach in higher education. Meanwhile, the findings of a comprehensive systematic review by AlSamarraie et al. (2020) analyzed evidence from various disciplines to evaluate the positive effects of FCs in higher education. The review discovered that FL offers numerous benefits consistently reported in other systematic reviews (e.g., El Gamal, 2022; Birgili et al., 2021; Zou et al., 2020; Zainuddin et al., 2019; Kozikoglu, 2019; Lo & Hwang, 2018) over the last five years. These benefits include improved engagement, participation, attitudes, metacognition, performance, understanding, self-efficacy, satisfaction, problem-solving, motivation, involvement, time commitment, interaction, and self-directed learning. Experts who were interviewed repeatedly observed these benefits in various contexts

and settings, both online and physical, with students of varying abilities and in classes of all sizes.

Along the same line, *it is crucial to highlight the unique benefits observed over a multi-year FC media-enhanced teaching method implementation. The term “gratification” has been borrowed from the media theory of uses and gratifications (UGT), which suggests that people use certain types of media because they expect to obtain specific gratifications due to those choices (Blumler, 1979). It is assumed that educators may choose to use the FC method over other methods due to the particular gratifications this study aims to explore. In this study, the unique gratification of the FC method is meant to go beyond instant gratification, which means that the rewards of this approach are confirmed only over time. In other words, this gratification can only be realized through long-term implementation and a record of trial and error that ensures the effort exerted in effectively applying the FC method is worth it compared to this approach's unique reward. Despite challenges such as excessive workload and time consumption, experts continue to use the FC method.* The participants highlighted the following as the most valuable aspects of this method: increasing the instructor's scholarly input, teaching complex topics, providing an opportunity for improvisation, and fostering a thirst for learning. This suggests that the main advantage of FC is the extended exposure to the lecturer's interpretation of knowledge and understanding rather than just active student involvement. Nonetheless, the FC model is grounded in constructivism and active learning philosophies, enabling student development and intellectual growth. Additionally, the repetition effect provided through the FC leads to increased student learning, which is not possible with direct teaching.

The Norm and Change

The de facto of the FC method challenges the traditional teaching approach and requires a culture that supports in-class learning. Some recent studies have reported contrasting findings about the positive impacts of the FC method, possibly due to the incompatibility of the FC pedagogy with the traditional learning culture (e.g., Youhasan et al., 2021). Transitioning from a teacher-centered to a student-centered learning approach may take some time, but it is essential for acquiring conceptual knowledge. Shifting the focus of class time from the teacher to the students redirects attention toward their learning (Arslan, 2020). On the other hand, the FL approach adopts a constructivist understanding, so it can be said that the FL approach promotes the quality of students' constructive learning (Danisman et al., 2017). Nevertheless, the FC method's effectiveness depends on its implementation's cultural context. Studies have acknowledged differences in cultural dimensions at the country level, such as uncertainty avoidance and individualism versus collectivism. However, there has been little examination of how students' cultural orientations may impact the implementation of FL (Arslan, 2020). Experts have discussed dimensions like uncertainty avoidance and individualism versus collectivism, highlighting their potential influence on the success of flipped pedagogies. The FC teaching method, originating in the West, may enhance learning outcomes in countries with cultural similarities that value self-directed learning and align with FC educational ideologies. For instance, a study by Karagöl & Esen (2019) found that the FC method exhibited more significant benefits in Turkey than in other countries. This discrepancy could stem from the lesser prevalence of active learning in collectivist cultures in the Middle East and Asia. The success and sustainability of the method hinge on its compatibility with the cultural context. Therefore, it

is imperative to develop flipped pedagogy through an instructional system design at the macro level.

The Macro and Micro Design of the FC

To implement FL in a class, the workload must be balanced at both the macro and micro levels. Early assessments are crucial to identify students' difficulties (Hsieh et al., 2021). For success, a consistent and well-informed plan is necessary. Studies indicate that students are more likely to comply with FL as they gain more experience with the approach (McLaughlin et al., 2014). The FL approach is dynamic and can be applied to different stages of the learning process. Experts suggest dedicating sufficient workloads during class time and using design tips like backward design, shortening videos, and gamification.

Theoretical and Practical Guidance

Understanding the theory behind the flipped classroom is crucial for its successful implementation. However, Abeysekera and Dawson (2015) noted that the practice of flipped classrooms is “under-theorized” (p. 2). A recent systematic review in mathematics education found that most studies should have reported on the theoretical frameworks for implementing the FC intervention (Cevikbas & Kaiser, 2022). This finding aligns with another systematic review by El Gamal (2022), emphasizing the need for more reporting on theoretical frameworks in included studies, irrespective of the field of study. Arslan (2020) also argued that FL promotes active learning and student-centrism, emphasizing the need to define FL based on theoretical frameworks. As a result, there is consensus among study participants about the ongoing debate regarding how to theorize the components of this method. Per Eppard and Rouchdi (2017), understanding the effectiveness of the FC method requires considering its dynamic interaction with the traditional teaching approach. It is important to note that not all implementations of the FC method are the same. For instance, Kapur et al. (2022) challenged advocates of the FC method who stressed the importance of active learning, which is supposed to be the core of this method. They examined whether the FC method is being implemented as intended—passive learning before class followed by active learning in class, where active learning should complement the passive pre-class instruction. According to Kapur et al. (2022), the most significant impact of active learning occurs when it is done before in-class instruction or as part of traditional instruction, contrary to the fundamental claim of flipped instruction that active learning occurs during class time.

The practical guidance, however, was found to be problematic. While the majority of experts supported the idea that activating a community of practice among educators is vital for ensuring the success of this approach, they also thought it is essential to view the FC as a flexible concept that allows for the fluid application of different theories. Additionally, professional training, in-session coaching, and mentoring are all essential factors contributing to the effectiveness of the strategies.

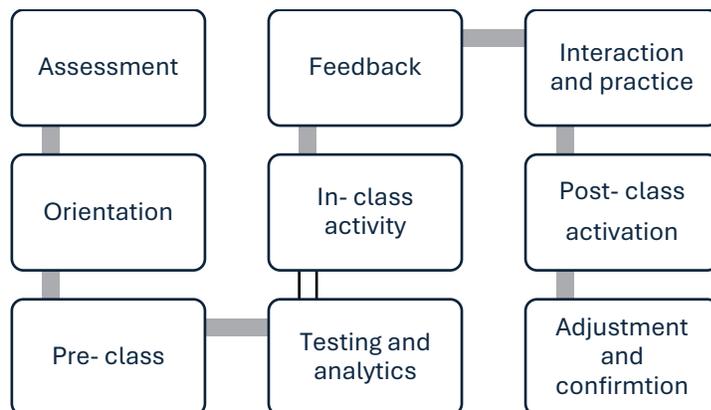
Institutional Support

Implementing a new model involves assessing institutional readiness and building the necessary capacity for dissemination at all levels. Implementing “cohesive plans” is strongly recommended for a successful FC implementation (Evans, 2019, p. 76). Experts recommend initiating change from within by creating meso- and macro-level frameworks while considering

the learner, educator, and institutional contexts. Figure 5 maps the essential workflow for effective implementation of the FC, including design elements, emphasizing needs assessment, practical orientation, and feedback.

Figure 5

Synthesis of the Design Process in the FC



Conclusion, Limitations, and Future Research

The study delved into veteran professors' shared understanding of FL and evaluated their perception of its impact on their academic practice. The study provided valuable insights with implications for adopting and using FL. While the FC method has a positive impact, it requires improvement in addressing low student orientation, tailoring class design, and providing support. However, it allows for unique content presentation and synthesis, enabling differentiated teaching and learning, making it a promising approach. The study recommends investing in theoretical frameworks and live sessions to enhance FL practices. The FC has been extensively researched, with recent studies considering teachers' perspectives. This study presents a narrative based on logical analysis and practical experience. Adopting a constructivist approach aims to understand FC implementation, provide personalized instruction, cater to individual needs, and encourage active participation. Embracing the FC method allows teachers to change their traditional role and promote academic autonomy among higher education students and institutions.

Due to the study's exploratory nature, the findings cannot be applied to the general population and should be interpreted cautiously. Another limitation is that some selections have shown strong groupings based on countries within national borders. However, the reputation of the nominees has remained a crucial factor in minimizing bias (Christopoulos, 2007). It might be challenging to apply the results of this qualitative study to other situations or environments due to the limited sample size and the specific context of the flipped pedagogy. While the study's sample is comprehensive, its applicability is constrained.

This study represents a step towards understanding what it is like to implement the FL in the higher education context effectively; however, to achieve this in different contexts, future

research will concentrate on large-scale studies aimed at exploring opportunities for promoting FL practices among different cultures, educational settings, and types of learners. Additionally, clear definitions are needed for effective implementation of FL, and design considerations are crucial for success. Further research is needed to comprehend the relationship between differentiated learning (DL) and FL. Delivering instructional videos and lectures in an FC format to students with lower abilities outside of class can help promote the effectiveness of FCs in diverse settings. Furthermore, it is vital to study the potential impact of combining FL with gamified tutoring and generative AI tools. Lastly, more research is needed on challenges and solutions related to FC practices.

Declaration of Conflicting Interests

The author has disclosed no potential conflicts of interest in relation to the research, authorship, and publication of this article.

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