

# **Beyond The Four Pillars of F-L-I-P, Exploring Theoretical Underpinnings of Flipped Learning in the Context of English for Academic Purposes**

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## **ABSTRACT**

This article explores a social-constructivist conceptualisation of Flipped Learning (FL) and advocates using the four pillars of FL (FLN, 2014; see Appendix I) as a roadmap to successfully embrace FL in English for Academic Purposes (EAP) courses. Thus, an understanding of FL grounded in social constructivism is shown while exploring how the four pillars of FL (FLN, 2014; Appendix I) are strongly underpinned by social constructivism. Strong parallelisms are drawn between the four pillars of FL (FLN, 2014; see Appendix I) and the four controlling principles of EAP (Flowerdew and Peacock, 2001, p.183) while acknowledging the potential challenges of constructivist approaches to teaching and learning. This article concludes by acknowledging the beneficial use of the four pillars of FL (FLN, 2014; Appendix I) when embracing FL in EAP contexts and calls for further research on the necessary elements to successfully implement FL in EAP courses.

**KEYWORDS:** English for Academic Purposes, Flipped Learning, Constructivism, Four Pillars of FL, Technology Enhanced Learning, Pedagogogy.

## **INTRODUCTION**

Despite the momentum that FL is experiencing (Abeysekera and Dawson, 2015, p.1), there is a considerable lack of consensus when it comes to defining the term, which makes systematic

research on FL more difficult (Abeysekera and Dawson, 2015). Abeysekera and Dawson (2015, p.3) make a compelling argument for a definition of FL that:

1. moves most information-transmission teaching out of class
2. uses class time for learning activities that are active and social
3. requires students to complete pre-and/or post-class activities to fully benefit from in-class work

These criteria clearly address the core of FL as it is understood by the wider education community. Yet, as emphasised by Abeysekera and Dawson (2015, p.3) themselves, the criteria fail to include any type of evaluation of FL. Thus, despite the unquestionable merits of the definition above, this article favours the definition of FL proposed by the Flipped Learning Network Hub (2014, p.1):

a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

Arguably, the Flipped Learning Network Hub's definition could face criticism because it is presented within a commercial context, and that criticism could be extended to the four pillars of FL (Appendix I) examined in this article. After all, although the Flipped Learning Network Hub presents itself as a showcase for FL as a method, it ultimately seems to be designed to popularise FL as understood by Bergman and Sands (2014), thus, enabling them to profit from the available paid resources or bookable talks. However, the Flipped Learning Network Hub does offer free resources and a safe online space where practitioners can discuss their FL experiences. Crucially, the merit of this definition lies in the fact that it addresses the use of learning space and the interaction between students and teachers. Considering Bloom's taxonomy of learning (1984), flipping the classroom simply means turning the traditional model upside down (Lockwood, 2014). Thus, the higher-order thinking skills are moved into the classroom (Lockwood, 2014, p.2), where students can benefit from exploring these skills with their peers and their tutor (Figure 1). This collaborative construction of knowledge can be linked to Vygotsky's (1978) social constructivism. In social constructivism, knowledge is attained through action and interactions in which individuals share their experiences (Crawford, 1996).

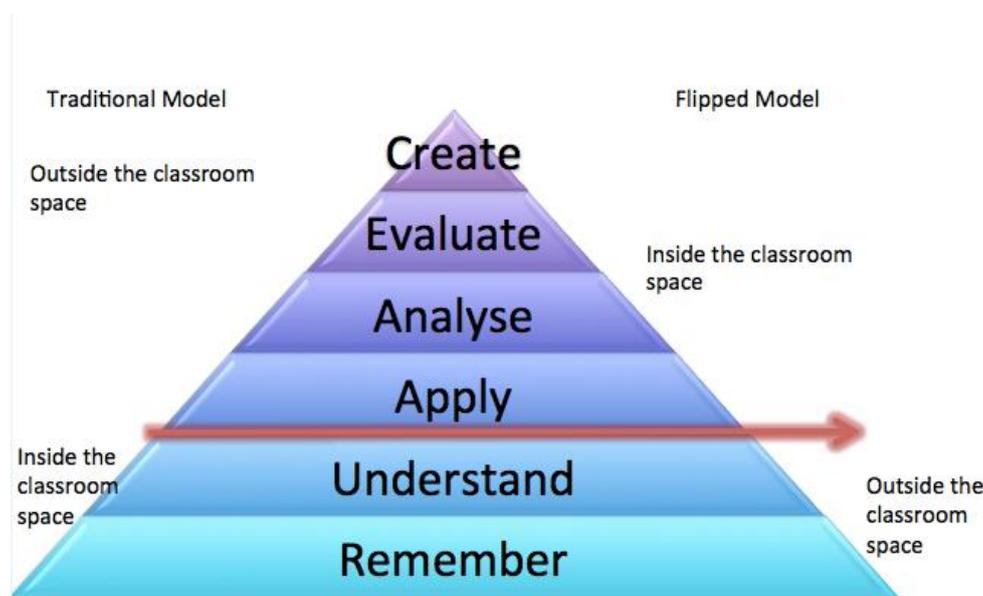


Figure 1: Bloom's Taxonomy in the Traditional Classroom and the Flipped Classroom (Based on Anderson et al., 2001).

Bergmann and Sams (2012), who are credited as the founders of FL as it is currently understood and are behind the Flipped Learning Network Hub, used pre-recorded lectures to present content. These pre-recorded lectures allowed students to engage with the lower-order thinking skills on their own. As depicted in figure 1, these lectures facilitated remembering and understanding information, that is low order thinking skills (LOTS) tasks, whereas the face-to-face sessions could then be devoted to the active manipulation of information, high order thinking skills (HOTS) tasks. Therefore, FL can be understood as a pedagogical approach that is independent of TEL and is underpinned by relevant educational theories, such as Bloom's taxonomy (1984).

As has been noted, following their successful implementation of FL, Bergmann and Sams founded the Learning Network Hub (2014), a virtual space that showcases FL as a method. The Flipped Learning Network Hub offers free resources and a safe online space for practitioners to discuss their FL experiences. By making the popular platform Slack available for practitioners and researchers to use free of charge,<sup>1</sup> the hub provides a welcoming space where discussions around FL can take place across educational institutions. One of the hub's key resources is the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I). These pillars are:

<sup>1</sup> <https://flippedlearning.org/fln-updates/join-the-flipped-learning-slack-community/>

1. Flexible environment
2. Learning culture
3. Intentional content
4. Professional educator

Their purpose is to provide a practical roadmap for adopting the FL method. They are also accessible to the wider public, because they were created to facilitate the transition to FL for practitioners and course designers alike. This can be particularly appealing for English for Academic Purposes practitioners and course designers. Considering the context of EAP courses (and pre-sessional courses in particular), readily available, clear principles for implementing FL efficiently would seem to provide an exciting starting point for pedagogical innovation. However, being practical and widely accessible is no guarantee that these principles will automatically translate into the EAP context. After all, Bergmann and Sams (2012) developed their method to suit a chemistry high-school course; when adopting FL, particularly at course level, course designers may be required to evaluate their students and resources in addition to the subject content. Crucially, it could also be argued that this emphasis on immediate practicality and instant access may be linked to a lack of strong pedagogical underpinnings under the proposed four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I). Therefore, this article explores how FL is underpinned by social constructivism. It argues that the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I) are grounded in social constructivism and suggests that they provide the necessary scaffolding for course developers and practitioners to successfully embrace FL in EAP contexts.

This paper starts by exploring how FL relates to the wider tradition of educational theories. It continues to highlight how social constructivism informs the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I). After acknowledging the potential limitations of constructivist pedagogies, it draws strong parallelism between the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I) and the four controlling principles of EAP (Flowerdew and Peacock, 2001, p.183). This article concludes by acknowledging how the four pillars of FL (FLN, 2014; Appendix I) can be an invaluable resource when embracing FL in EAP contexts.

## THE ROAD TO FL: REFLECTING ON THE JOURNEY

As Bergman and Sands (2012) themselves acknowledge, they cannot be credited with inventing FL (Noonoo, 2012); rather, it is the outcome of a drive within education to empower the learner. Abeysekera and Dawson (2015, p.2) point out that an earlier dissertation by Strayer (2007) is generally accepted as being the first academic discussion of FL. This ground-breaking academic work is itself embedded in earlier educational research and theory. At the turn of the century, three professors at Miami University wrote a seminal paper, 'Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment' (Lage, Platt and Treglia, 2000). As per their definitions, the inverted classroom is characterised by 'events that have traditionally taken place inside the classroom now taking place outside the classroom and vice versa' (Lage et al., 2000, p.32). In that sense, the principles behind the inverted classroom and FL are virtually identical; however, the two approaches differ in their underpinning rationales. While the inverted classroom advocates providing a wide range of options to accommodate different learning styles, FL advocates an inversion of Bloom's taxonomy (see Figure 1). By moving the tasks with a more demanding cognitive load into the classroom, FL makes it possible for the learner to explore these more challenging tasks with the support of their peers and the guidance of the tutor. In this way, learning becomes a collective experience (Vygotsky, 1978).

Bergman and Sands (Noonoo, 2012) attribute institutions' and practitioners' lower level of interest in the inverted classroom (in comparison with FL) to a lack of technological readiness. However, it could be argued that the theoretical underpinnings are the determining factor in the comparative success of FL. After all, the idea of learning styles has been widely discredited within educational literature (see An and Carr, 2017, Kirschner, 2017, Moser and Zumbach, 2018); on the other hand, a Vygotskian approach – to language learning in particular – has been found to be fruitful (see Poehner and Infante, 2017). This connection between FL and Vygotsky is also apparent in Correa's (2015) fascinating exploration of the underlying pedagogies in FL.

The idea of the inverted classroom can be traced back to Mazur's (1997) article entitled 'Peer Instruction: Getting Students to Think in Class Approach'. In this highly reflexive piece, Mazur (1997) recounts his experiences as a teacher of an introductory science course and recalls that allowing the students to read his notes before attending the sessions made lecturing redundant (Mazur, 1997, p.981). This approach also fits with Vygotskian traditions, as the students discuss in the classroom

the key points presented in the lectures explored at home. Mazur uses the 'concept test' to check students' answers and, more importantly, their reasoning; thus, checking within the sessions that understanding has already taken place (Mazur, 1997, p.983).

As already argued, the present article broadly understands FL as presented by Bergman and Sands (2014). However, this conception of FL has become intrinsically linked with the use of technology. This paper rejects such an intrinsic relation and advocates an understanding of FL based on the Vygotskian tradition. Although Bergman and Sands (2014) proved that using recorded lectures and quizzes can be extremely successful for content subjects, such as chemistry; this technique may not be suitable teaching as English as a foreign language (EFL) (Lockwood, 2014, p.1). Indeed, it is possible to apply the main principle of FL (i.e., redistributing the tasks according to their cognitive load) without the use of technology and thus benefit from encompassing resources and materials that are already being used in the classroom (Lockwood, 2014, p.39). In a similar vein, Lee and Wallace (2017, p.19) highlight that using suitable materials is key to fostering a successful FL classroom. Therefore, it is reasonable to argue that a social constructivist approach to learning may be the underlying characteristic that allows FL to foster active learning and achieve positive results. This would in turn explain why within the education community FL is more widely accepted than the inverted classroom.

### **CRITICAL EXPLORATION THE FOUR PILLARS OF FL**

Having addressed the historical review of FL, this section will explore the principles that Bergman and Sands (2014) consider necessary for adopting a FL approach. These are known as the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I):

1. Flexible environment
2. Learning culture
3. Intentional content
4. Professional educator.

This section aims to further exemplify how FL, as presented by Bergman and Sands (2014) is rooted in social constructivism. Therefore, these four pillars can guide EAP practitioners and course

developers when implementing FL in a clear, concise, and efficient manner while ensuring that practice is underpinned by strong pedagogical principles.

### **Flexible environment**

The first pillar, *flexible environment* (FLN, 2014), is understood within two dimensions. On the one hand, it can refer to flexibility in terms of space, which allows the learning space to be adjusted to accommodate independent or collaborative learning. On the other hand, it can refer to a practitioner's flexible attitude towards students' learning time and how to assess students' progress (FLN, 2014).

In terms of physical space, the idea that a flexible learning space is key to a successful learning environment is not new (Cote, 1982; Haft, 1972) and is echoed in the literature (Hassel, 2011). Of particular interest is Mulcahy et al.'s (2015) research on learning spaces and their relation to pedagogical changes. Their research concludes that changes in pedagogy are not causally linked to changes in the classroom environment but are the result of a more complex and intricate alteration in various dynamics (Mulcahy et al., 2015). In the same vein, it is reasonable to hypothesise that the flexibility in space related to the successful adoption of FL responds to the method's intrinsic characteristics. This flexibility in the classroom is one of the aspects that contributes to successful FL (FLN, 2014), but it is not the cause of FL or its only key to attainment.

This ethos of flexibility of space as a component of FL may be best embodied in Fisher's (2016) provocative article questioning the need for classrooms. Fisher (2016) argues that FL and active learning spaces are responses to new economic demands. The author argues that the current transformation of working spaces will soon be mimicked by the transformation of spaces in HE, facilitating students' interaction and access to knowledge via the use of technology (Fisher, 2016, p.10). Despite the potential controversy of this mostly utilitarian conception of education as a preparation for contributing to the world's economy (Fisher, 2016, p.11). Fisher's (2006, p.11) emphasis on how the educational spaces should respond to the task at hand aligns with this aspect of this first principle. Crucially, it reinforces the importance of maximising the use of the space to maximize teaching and learning. In practical terms, this suggests that having pre-recorded lectures may suit the needs of science, technology, engineering, and mathematics (STEM) subjects, whereas providing open spaces may foster creativity for science, technology, engineering, arts and

mathematics (STEAM) subjects. Thus, aiming to foster peer discussion of the content under the guidance of the tutor, as explain in this first pillar. Incidentally, this is a much more social conception of education which aligns with social constructivism.

In terms of flexibility of learning time, the idea of learners being given different amounts of time and assessment will now be addressed. Learners needing different amounts of time to master the tasks and content presented is linked to differentiation. As Konstantinou-Katzia et al. (2013) explain, differentiation and diversity are constants in the classroom across educational levels. This article adopts Tomlinson's (1999) definition of differentiation as a flexible yet organised way of adjusting the instruction and acquisition of knowledge to best suit learner needs so learners can achieve their maximum potential. Tomlinson (1999) argues that students maximise their learning when differences in readiness levels are explicitly accounted for in the classroom. Therefore, differentiation may be underpinned by Vygotsky's (1978) theory of the zone of proximal development (ZPD) (Konstantinou-Katzia et al., 2013). According to this theory, learning occurs in the distance between a student's ability to independently solve a task and a student's ability to solve a task with support (Vygotsky, 1978). Thus, it is reasonable to argue that flexibility in acquisition time and assessing learning is another aspect of differentiation. Depending on students' ZPD, they could in theory spend more (or less) time on tasks carried out before the sessions in order to achieve a state of readiness when engaging with the higher-order thinking skills. This aspect of flexibility may also be reflected in the design of the task, thus addressing different learners' needs. In addition, within the FL model, the higher-order thinking skills are explored and developed within the community of learners and under the guidance of the tutor. This links back to Vygotsky's (1978) idea of learning as a collective experience.

### **Learning culture**

The second pillar, *learning culture* (FLN, 2014), aligns FL with a learner-centred approach. It advocates using in-class time for fostering learning opportunities and for students to actively construct knowledge with the support of the teacher. Jones (2007, p.44) reinforces the idea that in the student-centred classroom the teacher's role shifts from instructor to facilitator and the students actively participate in their learning, thus developing independence and autonomy. The alteration in the role of the teacher is expertly summarised by Lockwood (2014, p.3), who writes that in the FL model, teachers move from 'sage on the stage' to 'guide on the side'. This has become a mantra in the literature exploring FL (see, for instance, Şahin and Kurban, 2016, Soliman, 2016, Oki,

2016). However, it first appeared in King's (1993) seminal paper entitled 'From Sage on the Stage to Guide on the Side'. In this article, King (1993) thoroughly examines the problems with the *transmittal model*— a traditional classroom model in which the teacher transmits knowledge to the students— and advocates a constructivist approach to learning. In fact, she suggests moving from a traditional lecture-based approach to cooperative learning, thus shifting the constructivist approach into the realm of a social constructivist approach (King, 1993). As has been explored, constructivism understands 'learning as an active constructive process' (Soharabi and Iraj, 2016, p.515) and, as Driscoll (2014) expertly summarises, it is underpinned by Vygotsky's social constructivism, Piaget's (1969) developmental and cognitive perspective, and Dewey's philosophy (1913, p.24). Thus, the second FL principle also closely advocates a constructivist understanding of FL.

As already highlighted, the concept of a student-centred FL approach is broadly based on constructivism. The first FL principle, flexible environment, is closely linked to social constructivism, and the second FL principle is connected with a broader understanding of constructivism. As Bada (2015) succinctly explains, the central idea grounding this theory is that learning is constructed; that is, new knowledge is built on previous knowledge, rather than resulting from the passive transmission of information relying on reception. It follows that by allowing students to explore the lower-order thinking skills in activities provided before a session, they can then build their knowledge on a strong foundation. Interestingly, this may also level the playing field within the classroom. Given that students come from diverse backgrounds and have different experiences of both the knowledge object of study and the academic culture itself, allowing them to engage with the content they need at their own pace may help to make sure that, by the time they are in the classroom, they are all within their ZPD to successfully build up their targeted knowledge.

Another key aspect of learning culture is the concept of *active learning*, which is also discussed in traditional education literature. This concept is not exempt from controversy about what it actually implies or encompasses (Prince, 2004). However, this article agrees with Prince's (2004) definition of active learning as 'any instructional method that engages students in the learning process, that is to say, in which students complete meaningful activities and reflect on their learning process'. Within this second principle, active learning is fostered while students engage with higher-order thinking skills.

Active learning according to Prince (2004) can be equated to what Anderson et al. (2001, p.63) describe as 'meaningful learning'. Anderson et al. (2001, p.63) identify three types of learning. The first, *no learning*, refers to failing to recall and use new information. The second, *rote learning*, refers to memorising information yet lacking the ability to transfer it to new situations and use it. The third is *meaningful learning*, which takes place when the information can be recalled and successfully transferred and used in new situations. Meaningful learning, in line with constructivist learning (Anderson et al., 2001, p.38), is conceptualised as the result of actively engaging in cognitive processes. Those cognitive processes may include identifying essential information, organising the information in a coherent manner, and relating the new information to knowledge already acquired. Therefore, constructivist learning and meaningful learning advocate students' ability to do more than simply remember or recognise facts (Bransford et al., 1999; Lambert and MacCombs, 1998; Steffe and Gale, 1995).

Within this constructivist approach, the teacher supports learners in their construction of knowledge (Duffy and Cunningham, 1996). This support is known as *scaffolding*. As Vygotsky (1978) explains, through scaffolding, students perform tasks slightly beyond their ability with guidance from their tutor. This is a key element of fostering learning culture as established by this second principle. Put simply, students engage with higher-order thinking skills activities with the guidance of the teacher and the support of their peers in line with social constructivism.

### **Intentional content**

The principle of *intentional content* (FLN, 2014) advocates the need for class content that helps students use their targeted knowledge. While the emphasis of the second pillar is on dedicating class time to higher-order thinking skills, this third pillar is about identifying tasks that focus on lower-order thinking skills so that students can explore them before the session. Interestingly, it highlights the importance of selecting suitable materials and states that the content should be accessible, relevant and sufficiently differentiated to appeal to the students.

This article has already identified active learning as a fundamental theory underpinning FL. Within the traditional classroom model, in practical terms, activities completed outside the classroom are considered to be active learning (Prince, 2004). An example of such an activity is asking students to write a summary of a text that they have read in class (evaluating, as per Bloom's Taxonomy) for

homework. Similarly, in more traditional EFL classrooms, it would not be unusual to ask students to rewrite (creating, as per Bloom's Taxonomy) a model of a formal letter that they have explored in class. However, these approaches sharply clash with the second and third pillars of FL.

To better understand the distribution of activities between higher-order and lower-order thinking skills, it is worth exploring what turning Bloom's taxonomy upside down implies in practical terms. The appendix of the Taxonomy of Educational Objectives (Bloom, 1956, pp.201-207) defines six key categories: knowledge, comprehension, application, analysis, synthesis and evaluation. According to this taxonomy of learning, *knowledge*, linked to recalling information, and *comprehension*, linked to the understanding of that information, are considered to be lower-order thinking skills. This is because the students are not actively manipulating the information; rather, they are exploring knowledge and comprehension. However, *application*, which requires students to apply abstract information in a tangible situation, *analysis*, which requires them to explore the explicit relationships among ideas expressed, *synthesis*, which requires finding common elements, and evaluation, which requires making a judgement on the information, are referred to as higher-order thinking skills because they require students to actively manipulate the information. Although Bloom's taxonomy is not exempt from criticism (see the revised taxonomy proposed by Anderson et al., 2001), it can offer a reliable framework for identifying meaningful learning (Moreno and Mayer, 1999) and guide practitioners and course designers in the conceptualisation and distribution of the tasks to reflect the insightful guidance of the second and third pillars of FL.

Crucially, to have a *flexible environment* and a *learning culture* (pillars one and two), students need to have engaged with the activities focusing on the lower-order thinking skills before the session. Failing to do so may not only result in a session with unprepared students who are unable to engage with the tasks but also prevent the students from engaging with the learning process at their own pace to meet their individual needs. Therefore, FL relies on students completing tasks outside the classroom.

Given that FL is so heavily reliant on students completing the required tasks before the session, it is worth mentioning that the usability and quality of learning resources contributes to satisfaction and motivation (Yilmaz, 2017) and, in turn, potentially contributes to the required completion of the said tasks. In practical terms, this may translate into a variety of activities that are not necessarily presented online but are designed specifically to prepare students to engage in the sessions. This

reliance on students' independent work has led to some reticence among scholars and practitioners, which is supported by Yilmaz's (2017) claim that to be implemented effectively, pre-session tasks need to be monitored. Similarly, Abeysekera and Dawson (2014, p.2) echo the recurring debate about students' self-preparation and how useful or assessable that preparation is.

In summary, when considering content that meets the learners' needs, practitioners and materials developers need to carefully distribute the task so that HOTS are explored in the classroom space to ensure peer collaboration and teacher's guidance in line with social constructivist theories of teaching and learning.

### **Professional educator**

The final principle, the *professional educator* (FL, 2014), further focuses on the role of the teacher in the flipped classroom. The principle asserts that timely feedback during sessions, along with valuable formative assessments, are essential in FL. Therefore, the ability to provide formative feedback is a core skill for practitioners adopting the model. Fletcher's (2018) highly praised and incisive study on learner engagement with teachers' formative feedback in the EAP context offers a current and succinct introduction to this type of feedback in HE. Fletcher (2018, p.1) acknowledges the considerable time and effort that practitioners devote to formative feedback but finds that it does not necessarily result in a corresponding level of engagement from students. Given that formative feedback is presented as a key ingredient of a successful FL lesson, practitioners need to be aware of how to deliver it in a way that benefits students' learning.

Interestingly, the professional educator principle also advocates a reflective practitioner who uses their in-class experience to enhance their teaching and 'tolerate controlled chaos in their classrooms' (The Four Pillars of F-L-I-P, 2014, p.2). This principle seems to refer to the benefits of 'messiness' to foster learning. Licht (2014) candidly describes the seemingly chaotic atmosphere in one of her courses when embracing *problem-based learning*, a model that advocates a student-centred approach in which students learn by doing. This ethos can also be linked to Dewey's (1913) conception of education, because it not only puts the students at the centre of the learning process but also relies on social interaction and practical life experiences to foster learning. In this way, the role of the teacher is once more expressed as that of a facilitator. As Licht (2014) explains, this approach (PBL) may result in students working independently in their groups and actively taking

ownership of their project, which may look 'chaotic' but allows them to actively engage with knowledge-construction and learning process. These dynamics, once again, align social constructivism.

This critical exploration has identified the learning theories that underpin these four principles. It has argued that the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I) are underpinned by social constructivism and can offer a clear, concise, and efficient guide for practitioners and course developers alike to embrace FL in Higher Education.

### FLIPPED LEARNING AND CONSTRUCTIVIST APPROACHES: CHALLENGES

In this article, I have argued that FL, as presented by the FLN Hub (2014), sits comfortably within constructivism. Table 1 shows how the characteristics of constructivist pedagogy as identified by Chen (2010, p.15) correspond with the four pillars of FL (FLN, 2014).

Characteristics of constructivist learning and teaching according to Chen (2010, p.15)	Corresponding FL Pillar
Authentic tasks and context	Pillar 1- Flexible Environment, Pillar 3- Intentional Content
Learners' ownership of learning	Pillar 2- Learning Culture, Pillar 4- Professional Educator.
Personal constructed reality	Pillar 1- Flexible Environment, Pillar 2- Learning Culture.
Opportunities for collaboration	Pillar 2- Learning Culture, Pillar 4- Professional Educator.
Opportunities for reflection	Pillar 2- Learning Culture, Pillar 4- Professional Educator.  Interestingly, opportunities for reflection under FL Pillars involve both learners and teachers.

Table 1: Characteristics of Constructivist Learning and Teaching as Identified by Chen (2010, p.5) and the Corresponding Pillars of FL (FLN, 2014).

At this point, it is important to acknowledge that my own understanding of education could be defined as constructivist; this reflects my positionality as both practitioner and researcher. However, there are indeed issues with this conceptualisation of education and pedagogies. Two main points of contention dominate the literature challenging constructivism (see Kirschner et al., 2006). First, the lack of empirical evidence is often presented as a criticism of constructivist pedagogies. Second, there are questions about how effective minimal instruction and guidance actually is. Kirschner et al. (2006) eloquently voice these concerns, adding that not all practitioners share this enthusiasm for constructivist pedagogies and that some question their effectiveness. This emphasises that the practitioner's own positionality and their relationship with underpinning theories shape the translation from theory to practice, which may in turn affect students' perceptions of the methods applied in the classroom.

Turning to the context of online learning, in a study on Chinese students' experiences of an online HE course in Australia, Chen (2010) expertly argues that constructivist teaching in the online setting reveals the assumption of a particular type of learner who, as her study highlights, is not necessarily the learner taking the course. Through the combination of Bernstein's conceptual framework (1977, 1990, 2000, as cited in Chen, 2010) and legitimation code theory (Maton, 2000, 2007, 2009; Moore and Maton, 2001, as cited in Chen, 2010), Chen (2010) reveals a 'code clash' between learners and practitioners. Unfortunately, this clash resulted in a mostly negative experience for learners.

Chen's (2010, p.241) interpretation of the findings is that teachers following a constructivist pedagogy, and thus avoiding explicit instructions, meant that 'from the students' perspective, ... in allowing learners this "freedom", the teacher became invisible, thus causing knowledge to become invisible' (Chen, 2010, p.242). This is a very interesting take on the problems that constructivism may create. However, the key to the successful application of a constructivist-based pedagogy may lie in the explicit explanation of these underpinning pedagogical principles to the learner. By doing so, students will be empowered with the necessary understanding to successfully construct knowledge in the classroom. Specifically, in the case of FL, this could be achieved by adopting a constructivist-based pedagogical model of pedagogy (Table 2), as proposed by Samaroo et al., (2013, p.87). This can promote effective and self-engaged learning environments for learners of all ages. In a similar vein, Akçayır and Akçayır (2018, p.338) suggest that FL may be effective for teaching adult learners due to the similarities it presents to andragogy. Within this context, it seems reasonable to suggest pedagogy as fitting for conceptualising FL because it acknowledges the potential

difficulties in terms of motivation and engagement that a student-centred approach like FL may reveal (Samaroo et al., 2013, p.87), while advocating for learners' collaboration in the design and assessment of the course (Samaroo et al., 2013, p.88).

<b>Framework for a pedagogical model (Samaroo, Cooper and Green, 2013, p.88)</b>
It is learner centered
The teacher is both facilitator and learner
It incorporated prior learning and learner experience
It focuses on internal and external stimuli
It encourages curiosity and exploration
The learner collaborated in the planning and diagnosing of needs
It involves collaborative evaluation
It focuses on the independence of the learner
It supports the concept of teacher immediacy in the learning process
It promotes self-efficacy in learners
It promotes self-engagement

Table 2. Framework for a Pedagogical Model (Samaroo et al., 2013, p.88).

With this framework in mind, it seems reasonable to argue that if learners are to actively take agency in this process, they need to understand and be familiar with the pedagogical underpinnings of the course; that is to say, they need to understand why a constructivist pedagogy has been used and what the expectations are in terms of teaching and learning.

On the other hand, Lockwood (2014) suggests a different approach. Given that students are used to doing homework, she relies on the expectation that students will engage with the pre-session tasks

without the need to explicitly address the rationale for completing the tasks before the session. Yet failing to explicitly address the importance of the pre-session tasks may be as problematic as failing to explain the expectations of learners in a constructivist approach. Not openly addressing the roles of students, practitioners and tasks may equate to students or practitioners failing to take agency and ownership of the ethos behind learning and teaching in a constructivist pedagogy, as has been argued in this section. In fact, by their very nature, failing to do so may result in an unsuccessful experience, as Chen's (2010) findings reveal. In a similar vein, failing to explain to teachers the rationale for using a particular method may also have negative consequences for the learning and teaching process (Villegas, 2021).

### **THE FOUR PILLARS OF FL IN EAP COURSES**

This article has argued that the four pillars of FL (FLN, 2014) are underpinned by social constructivism. It has also acknowledged the potential limitations of constructivist approaches and has offered suggestions to make such pedagogies valuable in the teaching and learning process. This section aims to explicitly address how FL, as understood by Bergmann and Sams (2012), can be seamlessly integrated in EAP courses.

As has been highlighted, EAP courses aim to develop students' academic literacy. They tend not to be included in any specific method due to the clash between their prescriptiveness and EAP's intrinsic eclecticism (Watson-Todd, 2003). This eclectic nature makes EAP a prime candidate for FL. According to Flowerdew and Peacock (2001, p.183) the four controlling principles of EAP are:

1. *The principle of reality control*, relating to the difficulty of the task.
2. *The principle of non-triviality*, stating how the task needs to be relevant for the students.
3. *The principle of authenticity*, requiring the language to be 'authentic for its specific purpose'
4. *The principle of tolerance of error*, allowing errors that do not compromise communication.

As can be seen, principles 1-3 can be aligned with a FL approach. Specifically, the pre-session tasks may help develop receptive skills (listening and reading) at the students' preferred pace while paving the way to those in-class activities that explore higher-order thinking skills. If these tasks were implemented successfully, students would be able to actively engage in the sessions because they

would already have worked through the lower-order thinking skills tasks, as suggested by Bloom's inverted taxonomy. Crucially, this could level the playing field in the classroom as students will have engaged at their own pace with the necessary information to engage with relevant HOTS.

Nevertheless, some practical considerations need to be addressed to ensure that learning objectives are met. To some extent, this reinforces the idea of subjecting methods to the pedagogical principles so as to foster a grounded and successful learning and teaching atmosphere. One example of this is the nature of the pre-lesson tasks. It is widely accepted that these tasks are mostly in the format of mini-lectures, which do not necessarily address the needs of language learners (Lockwood, 2014, p.39). However, as Lockwood (2014, p.6) also argues, setting a reading task may grant students the necessary time to understand the materials presented and clarify vocabulary, thus levelling the starting point and allowing students to fully engage with higher-order thinking skills. This can facilitate courses aligning with the principle of reality control by meeting students at their level with the pre-session tasks while turning the classroom space into a collaborative environment where students explore complex and authentic tasks, in line with the principle of authenticity, with the support of their peers and guidance of the teacher. This approach would also align with the principle of non-triviality by ensuring that both LOTS and HOTS address the students' needs.

*The principle of tolerance of error* (Flowerdew and Peacock, 2001, p.183) can also benefit from a FL approach, as illustrated by the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I), as it allows the classroom to become a truly communicative space where errors that impede communication need to be addressed successfully to ensure that students engage in knowledge building. Pillar four, professional educator (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I), also advocates timely feedback within the session. Thus, showing how these philosophies can coexist and enhance each other to promote effective teaching and learning.

As has been argued, there seems to be no glaring pedagogical clashes. The eclecticism of EAP, and the way FL can be implemented according to the four pillars of FL (FLN, 2014, The Four Pillars of F-L-I-P, Appendix I), could result in an effective combination that allows learners and practitioners alike to thrive. Flipping an EAP course may level the playing field by allowing students to adequately prepare for the challenges of engaging with HE courses through a second language. First, in-class sessions may help students to develop productive skills (speaking and writing) with the support of peers and guidance from the teacher. However, the main potential advantage of flipping an EAP

course (that is, students being able to engage with higher-order thinking skills in the sessions) goes hand in hand with the main potential pitfall. As tempting as a level playing field may sound, achieving it relies on students' abilities and their completion of independent work.

When exploring how FL can benefit EAO-P courses, both the four controlling principles of EAP (Flowerdew and Peacock, 2001, p.183) and the role of the teachers needs to be considered. Having explored how the four pillars of FL (FLN, 2014) can align with these principles, the role of the EAP teacher in a FL course will now be discussed. The EAP tutor tends to act as a facilitator of a student-centred pedagogy. In fact, EAP provision includes content from multiple academic subjects. However, the EAP tutor is a language specialist who may not be familiar with the content of other subjects – such as chemistry, for instance. Thus, Smith (2015) argues that a specialist in both language and subject content is rare: just as a subject tutor may find it troublesome to pinpoint the precise linguistic features that may be detrimental to the overall understanding of a student's written work, an EAP tutor may find it difficult to advise on content. To bridge this knowledge gap in the EAP classroom, Smith (2015) advocates a renegotiation of the roles, in which the tutor brings the linguistic expertise, and the student brings the content expertise. This fosters a more collaborative learning environment, as the students are active participants in the sessions. Co-constructing knowledge with the help of peers and tutors is once again linked to Vygotsky's (1978) social constructivism. Crucially, in the context of the FL model the classroom space is also connected to a social constructivist approach. This further similarity with underpinning theoretical principles can be seen as another exciting possibility to combine EAP with the second pillar of FL (FLN, 2014, Appendix I) as they share a common perspective regarding the role of the tutor.

## **CONCLUDING THOUGHTS**

This article has argued that FL can be understood within the context of social constructivism (Vygotsky, 1978), successful learning results from students' interaction and collaboration with their peers and tutors, in addition to engaging with tasks within their ZPD (Vygotsky, 1978). Thus, making FL a suitable approach to foster effective teaching and learning. The discussion in this article has revealed that although the four pillars of FL (FLN, 2014) may at first appear to be pithy slogans designed to promote a method, they are indeed underpinned by strong educational theory and social constructivism. In turn, these four pillars of FL (FLN, 2014) can effectively support the four

controlling principles of EAP (Flowerdew and Peacock, 2001, p.183) in pre-sessional and in-sessional EAP courses.

The simplicity of the four pillars of FL (FLN, 2014), combined with their strong underpinning by social constructivism, makes them especially suitable for temporary EAP practitioners who may want to familiarise themselves with FL in a quick and efficient manner. They can also be a useful tool for EAP course developers. However, a strong theoretical foundation is not a guarantee of successfully implementing FL in EAP settings. Therefore, further research is needed to understand the extent to which these principles can contribute to the successful implementation of FL.

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## REFERENCES

- Abeysekera, L. and Dawson, P. 2014. Motivation and cognitive load in the flipped classroom: Definition, rationale, and a call for research. *Higher Education Research and Development*. **34**, pp.1-14. <https://doi.org/10.1080/07294360.2014.934336>
- Akçayır, G. and Akçayır, M. 2018. The flipped classroom: A review of its advantages and challenges. *Computers and Education*. **126**, pp.334-345. <https://doi.org/10.1016/j.compedu.2018.07.021>
- An, D. and Carr, C. 2017. Learning styles theory fails to explain learning and achievement: Recommendations for alternative approaches. *Personality and Individual Differences*. **116**, pp.410-416. <https://doi.org/10.1016/j.paid.2017.04.050>
- Anderson, H.G., Frazier, L., Anderson, S.L., Stanton, R., Gillette, C., Broedel-Zaugg, K. and Yingling, K. 2017. Comparison of pharmaceutical calculations learning outcomes achieved within a traditional lecture or flipped classroom andragogy. *American Journal of Pharmaceutical Education*. **81**(4), p.70. <https://doi.org/10.5688/ajpe81470>
- Bada, O.S. 2015. Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research and Method in Education (IOSR-JRME)*. **5**(6), pp.66-70. <https://doi.org/10.9790/7388-05616670>
- BALEAP, 2013. Can Do Framework for EAP syllabus design and assessment [Online]. [Accessed: 13 November 2011]. Available from [https://www.baleap.org/wp-content/uploads/2016/04/Can\\_Do\\_Framework\\_with\\_sample\\_activities\\_April\\_2013.pdf](https://www.baleap.org/wp-content/uploads/2016/04/Can_Do_Framework_with_sample_activities_April_2013.pdf)

- Bergmann, J. and Sams, A. 2012. *Flip your classroom: reach every student in every class every day*. Eugene, Alexandria, Washington DC: International Society for Technology in Education.
- Bloom, B.S. 1956. *Taxonomy of educational objectives, Handbook I: The cognitive domain*. New York: David McKay Co Inc.
- Bransford, J.D., Brown, A.L. and Cocking, R.R. 1999. *How people learn: Brain, mind, experience and school*. Washington D.C.: National Academy Press.
- Chen, R. 2010. *Knowledge and knowers in online learning: Investigating the effects of online flexible learning on student sojourners*. Ph.D. Thesis, University of Wollongong.  
<https://ro.uow.edu.au/theses/3099/>
- Correa, M. 2015. Flipping the foreign language classroom and critical pedagogies. *Higher Education for the Future*. **2**(2), pp.114-125. <https://doi.org/10.1177/2347631115584122>
- Cote, R.R. 1982. Beyond classrooms: Alternative educational spaces for the future. *Planning and Changing*. **13**(2), pp.77-81.
- Crawford, K. 1996. Vygotskian approaches in human development in the information era. *Educational Studies in Mathematics*. **31**(1/2), pp.43-62. <https://doi-org.sheffield.idm.oclc.org/10.1007/BF00143926>
- Dewey, J. 1913. *Interest and effort in education*. Boston: Riverside.
- Driscoll, M. 2004. *Psychology of Learning for instruction*. Boston: Pearson Education.
- Dudley-Evans, T. and St John, M.J. 1998. *English for specific purposes*. Cambridge: Cambridge University Press.
- Duffy, T.M. and Cunningham, D.J. 1996. Constructivism: Implications for the design and delivery of instruction. In: Jonassen, D.H. ed. *Handbook of research for educational communications and technology*. New York: Macmillan, pp.170-198.
- Fisher, T. 2016. Do we need classrooms anymore? *Planning for Higher Education*. **44**(3), pp.9-11.
- Flowerdew, J., and Peacock, M. eds. 2001. *Research perspectives on English for academic purposes*. Cambridge: Cambridge University Press.
- Fletcher, C. 2018. *Learner engagement with teacher-generated electronic formative feedback (TEFF) on EAP writing: A multiple case study of international foundation students*. Master's Thesis, Sheffield Hallam University. [Accessed 20 April 2021]. Available from: <https://www.baleap.org/wp-content/uploads/2019/10/Caroline-Fletcher-Dissertation.pdf>

Flipped Learning Network Hub. 2014. What Is Flipped Learning? The Four Pillars of F-L-I-P™. Flipped Learning Network. [Accessed 13 November 2011]. Available from: [https://flippedlearning.org/wp-content/uploads/2016/07/FLIP\\_handout\\_FNL\\_Web.pdf](https://flippedlearning.org/wp-content/uploads/2016/07/FLIP_handout_FNL_Web.pdf)

Freire, P. 2018. *Pedagogy of the oppressed*. New York: Bloomsbury Academic.

Glisczinski, D.J. 2007. Transformative Higher Education. *Journal of Transformative Education*. **5**(4), pp.317-328. <https://doi.org/10.1177/1541344607312838>

Haft, J.S. 1972. Flexible teaching-learning spaces. *Academic Medicine*. **47**(5), pp.339-342. <https://doi.org/10.1097/00001888-197205000-00004>

Hassell, K. 2011. Flexible classroom furniture. *American School and University*. **84**(2), pp.18-21.

Hyland, K., and Hamp-Lyons, L. 2002. EAP: Issues and directions. *Journal of English for Academic Purposes*. **1**(1), pp.1-12. [https://doi.org/10.1016/S1475-1585\(02\)00002-4](https://doi.org/10.1016/S1475-1585(02)00002-4)

King, A. 1993. From Sage on the Stage to Guide on the Side. *College Teaching*. **41**(1), pp.30-35.

Kirschner, P. A. 2017. Stop propagating the learning styles myth. *Computers and Education*. **106**(1), pp.166-171. <https://doi.org/10.1016/j.compedu.2016.12.006>

Konstantinou-Katzia, P., Tsolakia, E., Meletiou-Mavrotherisb, M. and Koutselinic, M. 2015. Differentiation of teaching and learning mathematics: An action research study in tertiary education. *International Journal of Mathematical Education in Science and Technology*. **44**(3), p.332-349. <https://doi.org/10.1080/0020739X.2012.714491>

Lage, M., Platt, G., and Treglia, M. 2000. Inverting the classroom: A gateway to creating an inclusive learning environment. *The Journal of Economic Education*. **31**(1), pp.30-43. <https://doi.org/10.2307/1183338>

Lambert, N.M., and McCombs, B.L. eds. 1998. *How students learn: Reforming schools through learner-based education*. Washington, DC: American Psychological Association.

Lee, G., and Wallace, A. 2017. Flipped learning in the English as a foreign language classroom: Outcomes and perceptions. *TESOL Quarterly*. **52**(1), pp.62-84. <https://doi.org/10.1002/tesq.372>

Lewin, C., Facer, K., and Tsai, C. C. 2012. Learning futures: Education, technology and sustainability - The CAL 2011 conference. *Computers and Education*. **59**(1), pp.1-2. <https://doi.org/10.1016/j.compedu.2011.11.016>

Licht, M. 2014. Controlled chaos: Project-based learning. *The Education Digest*. **80**(2), p.49.

- Lockwood, R. B. 2014. *Flip it!: Strategies for the ESL classroom*. Michigan: The University of Michigan Press.
- Mazur, E. 1997. Peer instruction: Getting students to think in class. *AIP Conference Proceedings*. **399**(1), pp.981-988.
- Means, B., Bakia, M. and Murphy, R. 2014. *Learning online: What research tells us about whether, when and how*. New York: Routledge.
- Moreno, R., and Mayer, R. E. 1999. Cognitive principles of multimedia learning: The role of modality and contiguity. *Journal of Educational Psychology*. **91**(2), pp.358-368. <https://doi.org/10.1037/0022-0663.91.2.358>
- Moser, S. and Zumbach, J. 2018. Exploring the development and impact of learning styles: An empirical investigation based on explicit and implicit measures. *Computers and Education*. **125**, pp.146-157. <https://doi.org/10.1016/j.compedu.2018.05.003>
- Mulcahy, D., Cleveland, B., and Aberton, H. 2015. Learning spaces and pedagogic change: Envisioned, enacted and experienced. *Pedagogy, Culture and Society*. **23**(4), pp.575-595. <http://dx.doi.org/10.1080/14681366.2015.1055128>
- Noonoo, S. 2012. Flipped learning founders set the record straight. *THE Journal*. <https://thejournal.com/articles/2012/06/20/flipped-learning-founders-q-and-a.aspx>
- Prince, M. 2004. Does active learning work? A review of the research. *Journal of Engineering Education*, **93**(3), pp.223-231. <https://doi.org/10.1002/j.2168-9830.2004.tb00809.x>
- Samaroo, S., Cooper, E., and Green, T. 2013. Pedandragogy: A way forward to self-engaged learning. *New Horizons in Adult Education and Human Resource Development*. **25**(3), 76-90. <https://doi.org/10.1002/nha3.20032>
- Steffe, L.P., and Gale, J. eds. 1995. *Constructivism in education*. New York, London: Routledge.
- Tomlinson, C.A. 1999. *The differentiated classroom: Responding to the needs of all learners*. Alexandria: ASCD Publications.
- Piaget, J., and Inhelder, B. 1969. *The psychology of the child*. London: Basic Books.
- Poehner, M., and Infante, P. 2017. Mediated development: A Vygotskian approach to transforming second language learner abilities. *TESOL Quarterly*. **51**(2), 332-357. <https://doi.org/10.1002/tesq.308>
- Prince, M. 2004. Does active learning work? A review of the research. *Journal of Engineering Education*. **93**(3), 223-231. <https://doi.org/10.1002/j.2168-9830.2004.tb00809.x>

Şahin, M., and Kurban, C.F. 2016. *The flipped approach to higher education: Designing universities for today's knowledge economies and societies*. Bingley: Emerald.

Smith, C. 2015. Methodology in English for specific academic purposes. uni-sheffield.adobeconnect.com. EAP Conference Chris Smith\_0. [Online Conference Presentation] [Accessed 28 Mar. 2020]. Available from: <https://uni-sheffield.adobeconnect.com/p484ndpkawy/?proto=true>

Sohrabi, B., and Iraj, H. 2016. Implementing flipped classroom using digital media: A comparison of two demographically different groups perceptions. *Computers in Human Behavior*. **60**, pp.514-524. <https://doi.org/10.1016/j.chb.2016.02.056>

Soliman, N.A. 2016. Teaching English for academic purposes via the flipped learning approach. *Procedia - Social and Behavioral Sciences*. **232**(April), pp.122-129. <https://doi.org/10.1016/j.sbspro.2016.10.036>

Yilmaz, O. 2017. Flipped higher education classroom: An application in environmental education course in primary education. *Higher Education Studies*. **7**(3), p.93. <https://doi.org/10.5539/hes.v7n3p93>

Villegas, P. 2021. *Who wins when we FLIP? Exploring perceptions of Flipped Learning in an Online EAP Pre-Sessional Course*. EdD Thesis, University of Sheffield.

Vygotsky, L.S. 1978. *Mind and society: The development of higher mental processes*. Cambridge, MA and London: Harvard University Press.

Watson Todd, R. 2003. EAP or TEAP? *Journal of English for Academic Purposes*. **2**, pp.147-156. [https://doi.org/10.1016/S1475-1585\(03\)00014-6](https://doi.org/10.1016/S1475-1585(03)00014-6)

## APPENDIX

# The Four Pillars of F-L-I-P™

## F Flexible Environment

Flipped Learning allows for a variety of learning modes; educators often physically rearrange their learning spaces to accommodate a lesson or unit, to support either group work or independent study. They create flexible spaces in which students choose when and where they learn. Furthermore, educators who flip their classes are flexible in their expectations of student timelines for learning and in their assessments of student learning.

**F.1**  I establish spaces and time frames that permit students to interact and reflect on their learning as needed.

**F.2**  I continually observe and monitor students to make adjustments as appropriate.

**F.3**  I provide students with different ways to learn content and demonstrate mastery.

## L Learning Culture

In the traditional teacher-centered model, the teacher is the primary source of information. By contrast, the Flipped Learning model deliberately shifts instruction to a learner-centered approach, where in-class time is dedicated to exploring topics in greater depth and creating rich learning opportunities. As a result, students are actively involved in knowledge construction as they participate in and evaluate their learning in a manner that is personally meaningful.

**L.1**  I give students opportunities to engage in meaningful activities without the teacher being central.

**L.2**  I scaffold these activities and make them accessible to all students through differentiation and feedback.

## I Intentional Content

Flipped Learning Educators continually think about how they can use the Flipped Learning model to help students develop conceptual understanding, as well as procedural fluency. They determine what they need to teach and what materials students should explore on their own. Educators use Intentional Content to maximize classroom time in order to adopt methods of student-centered, active learning strategies, depending on grade level and subject matter.

**I.1**  I prioritize concepts used in direct instruction for learners to access on their own.

**I.2**  I create and/or curate relevant content (typically videos) for my students.

**I.3**  I differentiate to make content accessible and relevant to all students.

## P Professional Educator

The role of a Professional Educator is even more important, and often more demanding, in a Flipped Classroom than in a traditional one. During class time, they continually observe their students, providing them with feedback relevant in the moment, and assessing their work. Professional Educators are reflective in their practice, connect with each other to improve their instruction, accept constructive criticism, and tolerate controlled chaos in their classrooms. While Professional Educators take on less visibly prominent roles in a flipped classroom, they remain the essential ingredient that enables Flipped Learning to occur.

**P.1**  I make myself available to all students for individual, small group, and class feedback in real time as needed.

**P.2**  I conduct ongoing formative assessments during class time through observation and by recording data to inform future instruction.

**P.3**  I collaborate and reflect with other educators and take responsibility for transforming my practice.