

# Flipping diverse classrooms: Instructor experiences and perceptions

**Ekaterina Pechenkina**  
Swinburne University

Flipped Classroom is a pedagogical approach in which all or some of direct instruction is moved outside of the face-to-face environment to dedicate more in-class time to 'hands-on', experimental and engaging activities. Usually enabled by educational technology, the Flipped Classroom approach draws on the 'active learning' philosophy which implies that students must share responsibility for their learning with their instructors, resulting in more impactful learner behaviours. Considering university classrooms are increasingly diverse, with international students forming a significant cohort of learners, instructor perceptions of international students in Flipped Classrooms are of interest. This is particularly important because international students, especially those from Asian countries, can be perceived by instructors as 'passive' learners' regardless of students' actual skills, learning preferences and goals. This presumed 'passivity' may clash with instructors' goals, potentially creating tensions-filled dynamics between instructors and international students in Flipped Classrooms. The proposed article explores university instructors' perceptions of international students in technology-enabled Flipped Classrooms to understand how these perceptions may influence instructors' choices for the design of the flip. Findings demonstrate that while some instructors view international students as a barrier to impactful Flipped Classroom, others draw on their classroom's diversity, using it as a source of inspiration, and designing the flip with international students in mind.

## Introduction

*Flipped Classroom* is a pedagogical approach in which all or some of direct instruction is moved outside of the face-to-face environment to dedicate more in-class time to 'hands-on', experimental, engaging and 'active learning' activities (Roehl, Reddy, and Shannon 2013). Flipped Teaching and Learning (FTL) principles and methodologies are of ongoing interest to various stakeholders in Higher Education (HE), as evidenced by the robust body of the FTL scholarship rich in evidence-based and experientially-driven studies documenting methods, benefits and challenges of 'flipped' classrooms (Du, Fu, & Wang, 2014; Hwang, Lai, & Wang, 2015; Kim, Kim, Khera, & Getman, 2014). With some exceptions, FTL classrooms are enabled by educational technologies (Elmaadaway, 2017).

Student perceptions of their academic environment must be considered in FTL research as those can influence student learning outcomes (Lizzio, Wilson, & Simons, 2002). With university student cohort composition increasingly complex (Parr, 2015), diverse student experiences and perceptions also factor into how students engage with FTL. However, a review of recent

FTL literature suggests that diversity dynamics in flipped classrooms remain virtually unexplored. Specifically, considering the numbers of international students in English-speaking countries universities are increasing (Australian Universities, 2017; Chou, 2017; ICEF Monitor, 2016), research into how FTL classrooms with international students function is urgently needed.

At the same time, instructors' attitudes towards international students emerge as another important factor that might affect the success of FTL-enhanced classrooms, as instructors' bias and beliefs can shape their teaching interactions with students (De Hei, Strijbos, Sjoer, & Admiraal, 2015; Umbach & Wawrzynski, 2005). Such instructor bias can be exacerbated by the persisting discourse in the Australian media surrounding international students which continues to position them as a 'problematic' group (e.g., see Haugh's (2016, p. 727) examples of the routine use of such terms as 'cash cows', 'commodities', 'backdoor immigrants' and 'invaders' by media outlets when discussing international students). A number of persisting myths around international students' learning goals and abilities further paint this



This work is made available under a [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/) licence.

group (often referring specifically to Chinese students) as passive, reticent learners, struggling to adjust to the

Western ways of teaching and learning (Cheng, 2000; Kennedy, 2002). This state of affairs is particularly worrying as in Australian universities 25% of all students are international (Australian Universities 2017), with over 27% of them originating from China (Department of Education and Training 2016). When juxtaposed with the tenets of the 'active learning' philosophy behind FTL, international students' presumed 'passivity' may clash with instructors' FTL goals, potentially creating tensions-filled dynamics between instructors and international students in FTL classrooms. Further, as personal bias enacted against students by influential others (e.g., peers, instructors) can affect student behaviours and even influence their academic outcomes (Grunspan et al., 2016; Mantzourani et al., 2015), a better understanding of how instructors in diverse classrooms perceive their cohorts and make decisions about their teaching is timely.

Contextualised in the matters discussed above, the proposed research asks the following questions: how do university instructors (with HE lecturers and English as Second Language teachers comprising the sample) perceive international students in their FTL classrooms, and how these perceptions influence the instructors' FTL choices. The findings demonstrate that while some instructors continue to view international students as a barrier to impactful FTL, there are those who draw on diversity in their classroom, using it as a source of inspiration, and designing FTL with international students in mind.

## Literature review

### Flipped teaching and learning

Flipped Teaching and Learning approaches and strategies are wide-ranging, but are all shaped by the underlying goal of providing active learning opportunities for students (Baepler, Walker, & Driessen, 2014; Jensen, Kummer, & Godoy, 2015). A range of factors, such as colleagues' recommendations and perceived potential benefits to students, influence instructors' decision to 'flip' their classrooms (de Araujo, Otten, & Birisci, 2017). FTL classrooms are meant to re-shape the roles of instructors and students, with both groups sharing responsibility for learning: instructors transition from the 'transmission'-style teaching into more of a mentoring or learning facilitator role while students become more actively engaged in their learning decisions (Elmaadaway, 2017).

'Flipped' learning and teaching activities normally take place before and/or after face-to-face interactions but can also occur during class, hence either augmenting the 'traditional' lecture format or completely replacing it (Liu, Blocher, Armfield, & Moore, 2017). FTL activities designed

to engage students outside of the formal instruction environment can include videos and/or audios of lectures, screencasts, and simulations (Elmaadaway, 2017; O'Flaherty & Phillips, 2015) while in-class FTL activities can be lectures, presentations, small-group discussions bolstering critical thinking and problem-solving, and self- or peer-evaluations (Kim et al., 2014). While instructors using FTL approaches utilise a range of technologies and digital devices to enable the flip (Elmaadaway 2017), flipped classroom also can be made possible without technology (Talbert, 2017). Gender, individual perceptions, course design and other factors can influence students' engagement with FTL (Chen, Yang, & Hsiao, 2015), while an array of assumptions and expectations that instructors might hold about students can in turn shape instructors' approaches to FTL. For example, such persistent neuromyths as 'digital natives', 'net generation' and 'learning styles' may dictate how instructors teach and how they design FTL classrooms (McCarthy, 2010).

### Diversity in flipped classrooms

As outlined earlier, FTL classrooms tend to be powered by educational technologies, therefore students' digital skills and experience with technology can factor into their uptake of and engagement in FTL. Where international students are concerned, over the years, their digital skills and confidence have increased, suggesting that instruction methods may not need any modification to account for international students present in the classroom (Michalak, Rysavy, & Wessel, 2017). Further, when comparing self-rated digital skills proficiency between international and local students, only a few indicators differed by international status, GPA, age or parental education – in fact, such factors as discipline/area of study had far more influence on students' digital proficiency than their international status (Owens & Lilly, 2017).

While there are some examples of international students approaching learning differently when compared to their non-international peers (Eddy & Hogan, 2014; Savani, Alvarez, Mesquita, & Markus, 2013), when it comes to FTL, some studies suggest FTL may be better for international students than traditional lecture. For instance, a Canadian study comparing student achievement based on final grade between flipped and 'traditional' classrooms found that international students demonstrated a slightly higher increase to their grade than Canadian students (13.23% and 10.85% respectively) when compared to their corresponding groups in the non-flipped environment (Feledichuk & Wong, n.d.). However, others (Butt 2014) suggest that non-native English learners preferred traditional lectures to FTL formats.

If international student status does not appear to be a major factor in students' uptake of or engagement in FTL, instructors' attitudes and expectations where

international students are concerned may play a bigger role in FTL experiences of these students. For example, in a personal narrative based study a lecturer identified international students as her “biggest challenge” to implementing flipped approach in her classroom (Howitt & Pegrum, 2015, p. 464), citing their preference for a “transmissive teaching style” over active learning. Further, because in addition to learning the content of the unit per se international students were also “learning how to learn” while at the same time struggling with the concept of social constructivism (seen here as critical to FTL’s success), these students were a barrier to impactful FTL (Howitt & Pegrum, 2015, p. 464). Instructors’ perceptions of international students as reticent, passive learners may be to a certain degree attributed to such factors as students’ language difficulties. However, it could also be that students’ silence and non-engagement could be shaped by their understanding of learning as a process occurring by the means of “discussion *following* acquisition of ‘knowledge’” (emphasis added), and can in fact be an “active process, socially positive and beneficial to higher level of thinking and to deepening understanding” (Trahar, 2007, p. 14).

Whether based on observations or beliefs, instructor bias towards international students can shape instructors’ FTL-related decisions. Studies exploring such bias found, for instance, that negative beliefs held about international students affect how well instructors can understand international student speech (Sheppard, Elliott, & Baese-Berk, 2017). Comparing the attitudes of staff teaching at HE level with those teaching foundational level English, those in the former group were more likely to hold negative attitudes towards international students and use such phrases as “without appropriate skills”, “diminishes the learning experience” and “ill-equipped” to describe the students (Sheppard et al., 2017, p. 48), even going as far as to argue that international students’ presence in the classroom disadvantaged other students. What is troubling, Trahar (2007, p. 17) warns is that “language fluency and intellectual ability are often conflated in people’s minds.”

Research into how instructor bias can affect their teaching approaches remains scarce (Mantzourani et al., 2015). However instructors’ perception of international students as unable to fully engage with teaching and learning activities (whether due to ‘cultural’ traits, language or other factors, imagined or real) can influence instructors’ decisions whether to use innovations in their teaching or not (Mantzourani et al., 2015). Mantzourani et al. (2015) also reports that majority of instructors (70% of their sample of 102) may feel it is not their job to accommodate international students in their classroom, shifting this responsibility elsewhere (e.g. the university or the students themselves), while some feel they are not prepared to teach diverse cohorts due to their lack of cultural sensitivity training. Where Chinese international

students are concerned, the stereotypes of passivity, reticence and preference for a transmission-style learning continue to proliferate among instructors (Cheng, 2000; Kennedy, 2002; Lee, Farruggia, & Brown, 2013).

## The study

This research project sought to explore the complexities of instructor perceptions of and experiences with FTL in the wider context of an institutional culture encouraging teaching innovation. A literature review undertaken to inform the study’s design and methods revealed that most of the recent FTL research was conducted using quantitative methods and focussing on student experiences and perceptions (Bishop & Verleger, 2013; O’Flaherty & Phillips, 2015). It was decided therefore to use semi-structured interviews to generate in-depth insights into the FTL phenomena from the perspectives of staff. Participants were recruited from the university’s wider cohort of academic staff with active teaching duties. Because the university is a dual-sector institution, participants were either from HE or from Vocational Education sector. Hence, throughout the article, participants are referred to as ‘instructors’.

After receiving ethical clearance, participants were recruited via an email invitation facilitated by faculty deans and by the researcher herself utilising a ‘snowballing’ technique. Main inclusion criteria were active teaching duties and the use of FTL. Participants’ gender was deemed irrelevant for the recruitment purposes as the study’s focus was primarily on the instructors’ complex experiences with FTL. On the other hand, participants’ academic discipline/field was deemed important and all effort was made to recruit from all faculties. However, as no staff from arts, social sciences, health and humanities responded to the recruitment invitation, the sample comprised two key groups of instructors: those teaching STEM subjects (including sciences, technology, engineering and mathematics as well as design) and those teaching accounting and commerce as well as a few instructors working in the Vocational Education sector. In total, 18 instructors participated, with interviews lasting 1-1.5 hours. Interviews were audio-recorded, transcribed and analysed using NVivo software to identify themes and trends. Of 18 participants, ten were women and eight were men. Of ten women, six were Anglo-Australian, one of Scandinavian background, two of Sri Lankan background, and one of Russian heritage. Of eight men, all were of Anglo-Australian background.

The interviews addressed various topics of inquiry relevant to FTL, such as instructors’ definitions, motivations and how-to techniques as well as various challenges associated with FTL. International students and diversity in FTL were not initially among this study’s topics of inquiry; however, this theme emerged as a concern



shared by many and, thus, became another area of investigation.

## Findings

Out of 18 instructors interviewed, 11 (over 60% of the sample) brought up international students and diversity in the context of FTL unprompted. Out of the latter segment of the sample, five addressed the topic on a surface level, while the rest dedicated a significant portion of the interview exploring it. Those who discussed the matter on a surface level were two Anglo-Australian men (one of them working in the Vocational Education sector), the Russian-background woman, one of the Anglo-Australian women and one female academic of Sri Lankan background. All of these (with the exception of the Vocational Education instructor) taught either engineering or commerce subjects and were appointed at either senior lectureship or associate professorship level. At the same time, among instructors who discussed the topic of international students in an in-depth manner were three Anglo-Australian women, one female staff of Sri Lankan background, one Scandinavian-background woman, and one Anglo-Australian male staff. Two participants in the latter group (male and female, both Anglo-Australian) were employed in the Vocational Education sector.

### Instructor perceptions of diversity in flipped classrooms

When discussing international students in FTL classrooms, all instructors tended to follow similar narrative pattern, positioning international students as an important factor influencing the dynamics of the FTL environments, and putting the international student status in the same category of factors as students' year of study, their academic skills or motivation for learning. Various ideas instructors held about international students were arrived at as a result of their teaching experiences rather than based on strategically collected data. Main themes emerging from instructors' narratives around international students in FTL classrooms were challenges associated with international student presence in FTL spaces; the changing role of an academic in the diverse FTL classroom; and practical approaches to how to take advantage of diversity in FTL classrooms.

## Challenges

### Passivity

International students' alleged passivity as learners emerged as one of the key challenges to the impactful flip. As the FTL approach is based on the active learning pedagogy, which implies students are expected to share the responsibility for their learning with educators, instructors saw international students' perceived passivity as incompatible with the goals of FTL, regardless of the flip's design. In this context, international students were discussed as a homogenous group, constructed as the

'Other' and set aside as too different from their non-international peers (the latter cohort also seen as mostly homogenous). However, whenever learner passivity was mentioned, Asian students were singled out, the rhetoric hence perpetuating the stereotype of passive Asian learners, as highlighted by the relevant literature.

Instructors who discussed international student passivity on a surface level spoke of this group in terms of students' overall (presumed) preference for a particular mode of learning. The 'learning styles theory' was commonly mentioned as a justification of the instructors' belief that students from Asian countries preferred a 'transmission style of learning', associated with passivity and a lack of learner independence. For example, as one engineering instructor said, in his classroom "30% are international [students], usually from South East Asian countries where all learning is by transmission and... by getting a lot of information." The same instructor saw this 'cultural preference' as a barrier to successful FTL classroom because, he believed, these students were not likely to engage in an active way of learning that FTL demands. Furthermore, this instructor positioned 'learning style' as *a priori* phenomenon, something that must be taken into account when designing FTL, implying international students possessed a more passive style of learning.

A female instructor teaching a commerce subject also spoke about international student passivity as a 'given' trait: "a lot of the international students, especially in the early years don't get the concept [of flipped learning]" and therefore are likely to come to class unprepared, slowing down the dynamic flow of the FTL classroom. She elaborated: "[international students are] used to coming to class and being told what to do. They find [FTL] confronting, they think that we're being lazy by not delivering – 'You're supposed to be teaching me!'". Managing such a (perceived) expectation from international students in the FTL classroom was seen as a barrier, but at the same time "it's more enjoyable" that way", the instructor concluded, adding that she liked the "challenge".

Third instructor speaking about international students' passivity and their subsequent expectation of transmission-style teaching echoed the above ideas: "[students] never... like to see a teacher taking a really passive role and not giving them words and everything". She added that FTL is "not the structure they're used to" and therefore she would not 'flip' a classroom with many international students in it. Another instructor (a male working in the Vocational Education sector) reiterated the passivity stereotype by saying "students from Asian countries" preferred a certain way of teaching, "where it's basically one person talks and you just shut up and write down everything and then regurgitate in exam." However, instead of choosing not to teach in the flipped

mode as his female colleague stated above, this Vocational Education instructor believed FTL was in fact a perfect way of teaching international students because it pushed them out of their comfort zone and engaged them in learning: he explained that FTL for these students was “a very different way of learning, where they have to discover, they have to think,” and where “it’s getting them to become a part of the process by actually thinking and asking questions, rather than just being talked at. They learn that way and they can ask questions and they can engage and interact, depending how you plan your class the next day after, after you’ve flipped... They quite like it.” This instructor, however, also noted that being from the Vocational Education sector gave him far more chances to engage students in class compared to his HE colleagues because:

*[Vocational Education] students have more [of] an opportunity to have discussions and seminars and things, based on what they’ve seen... And maybe I’ve just spent 15 minutes just filling in any gaps that they need to have – but I can get straight into [it], get them discussing things and whatnot, or doing some practical hands-on stuff that they have to do. They find it more engaging to speak and to interact with others than just to sit and listen to me while they’re on their mobile phones.*

Like others in this study, this Vocational Education instructor mentioned the ‘learning style theory’ as something that guides his teaching: “I just try and think of all the different learning styles that students can have, and I try to develop things that meet a lot of those learning styles, which is pretty important”. He elaborated that “students have different learning styles; maybe one class may be better at learning auditory rather than kinaesthetic, or rather than whatever, visual or things like that. So I just base it on the students reactions, how successful I’ve been or not.” Finally, a female IT lecturer added to the chorus on passivity by saying that “[international students] want you to tell them exactly what to do. They won’t trust what’s written. They need to see it come from the tutor. Which is a bit frustrating, because sometimes my tutors are not always on track, on message.” The latter issue, she believed, could be resolved by better investing into tutor training, and ensuring tutors routinely raise awareness amongst students as to the rationale and expectations of the FTL model. The same IT lecturer also felt it was harder to implement FTL in large and more diverse classrooms because of a higher number of competing student expectations and so by introducing FTL, she would risk receiving lower satisfaction ratings from students:

*[Mine is] a core subject. I have your double-degree engineering students who are as bright as a tack, who do seem to like [flipped*

*classroom], for the most part. I have international students ‘straight off the boat’. I have postgraduate students, international and local. When you’ve got 300 of them, trying to make everybody like you enough to give you a nine-and-a-half rating [is hard]... But if you’re working with 30 students and you can give individual [attention] – [that] impacts on any ratings for me.*

A sole critique of the international student passivity discourse came from a female Vocational Education instructor teaching English as a Second Language (ESL), who described passivity as an “unhelpful stereotype” and even contemplated whether it was to blame for international students’ resistance towards the FTL approaches rather than their presumed inherent traits:

*I think we like to think that international students, especially those from Eastern countries, have this very passive expectation the teacher is going to pour all the knowledge into the top of their head and they’ll just sit there and receive it. I don’t agree with that, I don’t think that’s necessarily true. I think there are students who just want to sit back and pretend that they’re listening to what you’re saying and hope that they’ll get something by osmosis, I guess. But I think if you set up your classroom environment, and it’s easier with smaller classes, if you’ve got 70 [students] in your workshop – I don’t know what the sizes are but a lecture is completely different, that’s another kettle of fish, but I think they learn to be interactive.”*

This instructor was also aware that it could be cohort-determined how students responded to her active learning FTL activities: “I think [expectations of FTL] depend on your cohort of students. I think it’s a personality thing. You can get some kids from China and Vietnam who will just sit there and want the teacher to do all the work, and you’ll get others who are very feisty and want to chat. So it’s just completely a personal thing.”

### Language

International students’ English language difficulties emerged as another challenge to the impactful FTL. For instance, when a female Anglo-Australian lecturer teaching a third-year commerce subject assessed her experiences with flipping the content, she concluded, “no matter what I do, the students find this particular unit so difficult and challenging and boring. And no matter what I do, I don’t think that’s going to change... It can be really dispiriting.” She believed that high failure rates in this subject were due to a high percentage of international students who struggled with English: “students can fail

this unit three or more times because they just struggle with the language. It's really language problems! And yet we involve Learning and Academic Services. We have Learning and Academic Services come in and go through the assignment every time and they're on [Learning Management System, LMS] and they interact directly with the students as well and we'll see students to help with the assignment..." Based on her many years of teaching and convening this subject, the instructor believed that student disengagement had nothing to do with the mode of delivery but rather was due to students' level of preparation, specifically, their low level of English which, she said, was "a huge issue", asking "why aren't we sorting them out before third year?"

This third-year commerce instructor also outlined several techniques she tried out to engage her students. These included running 'trouble-shooting' synchronous online sessions and instituting an open-textbook policy during exams. Concerning the former, the 'trouble-shooting' endeavour failed to work due to consistent low attendance. As for the students who did 'show up' to the online sessions, those "who really need it, often... won't talk... because they're nervous about talking, about their own language skills." The instructor thought that for these students, "the best thing... is [to] go and get English assistance, which we offer through Learning and Academic Services", however "because of their visa requirements, they have to do so many units, so they really don't make that [support] a priority." Concerning the open-textbook exam policy, this instructor encountered another unexpected barrier in the form of the university's blanket 'no dictionary during exams' policy which was at odds with her open-textbook policy. She contemplated: "allowing a textbook in is one thing, but if [students] don't know what the words mean, even though there's a glossary in the textbook..." it renders the open textbook policy useless. She suggested the university "needs to rethink [its] dictionary [policy]" to better accommodate international students. She also stated that allowing textbooks during exams was an "effective tool" as it eliminated the need for content memorisation, an unhelpful practice she associated with passive learning.

The issues such as international students' (presumed) passivity and insufficient English language proficiency could be positioned within the wider context of deficit models commonly associated with the experiences of 'Others' in Western education systems (Valencia & Solórzano, 1997). While, as the article's second half demonstrates, many instructors envisage diversity-centric ways of engaging international students in FTL classrooms, the dominant positioning of international students as a 'challenge to be overcome' appears to be alive and well, affecting the narratives of impactful FTL.

### Instructor's changing role in diverse flipped classrooms

Instructors teaching in diverse FTL classrooms tended to contemplate how their FTL experiences made them query a number of assumptions they held about their role as an academic. For instance, the female Vocational Education ESL instructor whose anti-deficit narrative was outlined earlier positioned herself within her FTL classroom in the context of student empowerment:

*Whatever I do, I hope it empowers students to learn, I hope it empowers them to reflect, I hope it empowers them to succeed in whatever they want to do. So for me that's what motivates me – that wish to empower. I actually like imparting my knowledge and my experience as an example of possibility for them as a starting point, but I think in the end it's just providing rich meaningful opportunities for them to explore themselves, their world, to develop their abilities and to identify... their strengths and their gaps.*

She reiterated, "it's important to not always work from a deficit model, [on] what [students] *can't* do, and instead really celebrate what they *can* do and to build on that, and to get them to identify the gaps by setting up situations where they need a particular skill in order to do something and when they say, 'I can't do this because I don't know how to do that', they can actually teach each other or try and teach themselves." She concluded that the "autodidact" type of learner "is the new 21st century person.

However, this instructor also found she was learning to be flexible in her role as a FTL educator and that she had to become attuned to her students' needs and expectations and adjust her FTL approach accordingly. She said, "...sometimes when it's wintertime and they've been here for six months and they're missing their family, they lose focus... start to not come to class and things like that. So it's more than facilitating – it's actually motivating [them]. It's a bit more like a life-coach... than facilitator." While she acknowledged the situation may be different in HE, where such individualised support was not always possible, she saw her role as having to go beyond her teaching duties: "We all use this word, 'I'm a facilitator, I'm an instructor', but I actually think it's more than that, it's bigger because there's also that pastoral aspect. Maybe not so much for academics with big classes, but certainly in the [ESL] sector and in the smaller pathways courses – I know other teachers are the same. It's about really supporting students to achieve their goals."

When asked about the emotional burden of having to provide student care in addition to teaching, she replied in affirmative: "We always say, and we know this, that



[Vocational Education/ESL] is like kindergarten, I guess, or the training wheels before they get to university. And I think they often feel a little bit lost when they actually begin their course.” She also acknowledged that in some ways the university attempted to ease this transition: “I think that’s why they introduced the BBA degree which is the Bachelor of Business Administration. So the first year is within Vocational Education but they’re involved in a Bachelor program, so that first year is really scaffolded.” This structure of an undergraduate degree shared some similarities with other ‘bridging’ programmes, for instance those designed to facilitate Indigenous students’ transition into HE (Pechenkina 2015). This ESL instructor saw it as part of her role to prepare students for a smooth transition into HE. The latter could be achieved in part by introducing students to “meta-cognitive training and meta-learning” and helping them understand “what works for them in terms of learning, and where their strengths are and where their gaps are”. This instructor saw FTL as a perfect environment to achieve these goals as FTL has the potential to empower students and transform them into independent learners.

### Engaging international students in flipped classrooms: Implications for design

Several instructors in this study discussed how they designed their FTL specifically to empower international students by drawing on the students’ strengths and observed learning patterns. For instance, a female Anglo-Australian design instructor outlined her use of various digital technologies to enable FTL. After observing how international students engaged with certain technologies, she adjusted her own use of technology in the classroom to meet student expectations. For instance, after noticing her students used eportfolio application on their mobile phones to annotate her lecture slides, she introduced eportfolio as part of her teaching and assessment practice. She noted how learning about “different technology [preferences] across different cultures”, for example, finding out that international students were “much happier using digital technology and emoticons [than interacting face-to-face]” was a revelation to her. She added that, specifically “emoticons are great, they really help” because they are a “universal language” and could help prepare international students for professional world where communication skills are instrumental to success. She said, “I see emoticons being used [in professional communications], and I see it [used by] people in employment. Because there is no tone in email, and therefore you can add a smiley face, and it’s the tonality that’s important.” She went on, “because a sense of humour [is important...] – [in] America, [there’s] no sense of irony. [In] Australia, self-deprecating, sarcastic humour is the rule of thumb.” She recalled learning that “colour and tone mean very different things” in different cultures but “a smiley face was that universal [sign] of welcome and smiling”. She relied on this knowledge to incorporate the use of emoticons into online components

of her FTL to improve students’ overall communication skills and boost their confidence.

Another female instructor (teaching ESL) used technology to transform her FTL assessments, (re)making those into active learning opportunities for students. For example, she instituted the use of various vocabulary builder mobile applications as self-assessment tools to challenge and augment the way students learned English grammar. She also utilised the collaborative affordances of LMS-based forums and ran synchronous collaboration sessions to enable peer assessment – with considerably more success than her HE colleague (discussed earlier) whose similar efforts failed to engage students. Further, the ESL instructor designed her FTL components by drawing on the produsage model (Bruns & Schmidt, 2011), in which international students would become (co)producers and users of their own learning artefacts, or in the case of ESL, “language artefacts”. Students would then present these artefacts in class, allowing for gaps in understanding to become uncovered and discussed. Hence, by structuring her FTL approach around international students’ strengths and capabilities, this ESL instructor challenged the deep-seated deficit-model assumptions around international students’ passivity and alleged preference for learning by transmission.

In turn, the Anglo-Australian female commerce instructor whose international students showed little interest in the LMS-based online collaboration activities felt she succeeded in using FTL to engage international students by creating authentic ‘real-life’ learning experiences for them. For example, she ‘flipped’ her face-to-face content into case-study and scenario-based learning situations, built around the topics of (presumed) interest to international students, such as world politics, migration, and employment markets valuing international professionals. She explained her rationale for doing so by stating that international students were “not empty vessels, [but rather] they come with their own personal schemer, there’s a whole world in there” – therefore it was crucial to give them more control over their learning by shaping FTL learning opportunities around their interests.

Active learning approach and produsage model were drivers of instructors’ FTL aspirations, while technology was the main enabler of FTL. However, as one of the instructors using technology to facilitate FTL noted, educational technologies represent yet another skill international students might need to learn in order for them to embrace FTL. Otherwise, students may be resistant to technology and their resistance, in turn, could jeopardise their engagement with FTL. As this instructor observed, “initially [students] don’t get [technology] and there’s a resistance to it, but then they really get into it, and [other] things like the [LMS] discussion board.” Though she reiterated that “all of these things need

training in how to use, [and] it has to be very scaffolded – you can't just send them off to do it by themselves, so the flipped classroom. If we're going to use that model, [it] will only work with training."

## Conclusion

This study explored how university instructors in a dual-sector institution perceived international students in FTL classrooms, and how these perceptions influenced the instructors' FTL choices. Mirroring previously articulated claims that international students were a 'barrier' to FTL (Howitt & Pegrum, 2015), this study found that the passivity stereotype and general deficit-skewed perceptions of international students in FTL classrooms were held by a significant number of participating instructors. Instructors' gender, ethnic or disciplinary backgrounds or whether they were employed in the HE or Vocational Education sector did not seem to matter in that regard. However, the sole critique of deficit-based approaches to international students came from a female Vocational Education ESL instructor, a finding reflective of studies reporting that ESL staff were likely to hold more positive attitudes towards international students than their HE colleagues (Sheppard et al., 2017).

Often emerging as a part of the same argument, international students' passivity was mentioned by some instructors as frequently as 'learning styles', both concepts existing as *a priori* state, that if, something to be expected – a finding reflective of literature (Kennedy, 2002; McCarthy, 2010). Some instructors even mentioned using the 'learning styles' neuromyth as a rationale for their FTL decisions, for example, to justify their resource creation patterns, where videos and/or audio lecture formats were deemed necessary to suit different 'learning styles'. However, Trahar (2007) and others warn against over-supplying students with learning resources without providing an overarching structure and giving students topical guidance on how to engage with these resources effectively.

Different from their colleagues viewing international students as somewhat of a barrier to impactful FTL, there were instructors who drew on student diversity in their classrooms as a driver of teaching innovation, designing FTL with international students in mind. These instructors used diversity-centric FTL approaches to 'push' international students out of their comfort zone and engage them in specially tailored content. For example, one instructor, after observing her students' use of technology, realised the usefulness of eportfolios and emoticons when communicating with her students and implemented both of those elements into her FTL design. A limitation of this study, the effectiveness of the FTL classrooms (e.g. impact evaluated based on students' final grades or their rates of completion, retention, or satisfaction) was not measured, leaving room for future

research into impactful FTL practices in diverse classrooms. However, considering majority of HE instructors may not see the task of improving learning experiences of international students as their responsibility (Mantzourani et al. 2015), shifting the onus instead on the university or even the students themselves, it could be said that success of FTL in diverse classrooms largely depends on an instructor's individual efforts and their willingness to listen to students and augment their teaching accordingly.

The theme of training, for both instructors and students, where FTL and technology were concerned, also emerged as important. Tutors and lectures would need to train in FTL delivery to boost their own confidence in this approach and to help them raise FTL awareness amongst students. Inclusive of 'learning neuromyths busting', such training would need to be incorporated into various induction programs for staff new to teaching as well as into various postgraduate offerings available as professional development to all academic staff (e.g., certificates or diplomas in teaching and learning). Further, cultural sensitivity training instead of focusing predominantly on preconceived culture-based differences between students would need to inspire instructors to self-reflect and query their own beliefs and bias. Cultural sensitivity training could then draw on case studies and scenarios challenging unhelpful ideas about international students, such as their alleged passivity and preference for learning by transmission. Such training could potentially encourage more instructors to try out FTL and other innovative approaches in their teaching.

In conclusion, while the study helped reveal some persisting ideas instructors still hold about international students (some even seeing the students as a barrier to teaching innovation and FTL), there is definitely a promising shift towards using diversity as an asset rather than a burden. Considering how under-researched the area of race and diversity in the context of FTL and teaching innovation in general is, further studies on these topics are urgently needed.

## References

- Australian Universities. (2017). *Student numbers in Australian universities*. Retrieved from [www.australianuniversities.com.au/directory/student-numbers/](http://www.australianuniversities.com.au/directory/student-numbers/).
- Baepler, P., Walker, J., & Driessen, M. (2014). It's not about seat time: Blending, flipping, and efficiency in active learning classrooms. *Computers & Education, 78*, 227-236. doi:10.1016/j.compedu.2014.06.006
- Bishop, J. L., & Verleger, M. A. (2013, June 23-26). *The flipped classroom: A survey of the research*. Paper



presented at the American Society of Engineering Education National Conference, Atlanta, GA.

- Bruns, A., & Schmidt, J.-H. (2011). Probusage: a closer look at continuing developments. *New Review of Hypermedia and Multimedia*, 17(1), 3-7. doi:10.1080/13614568.2011.563626
- Chen, S. C., Yang, S. J., & Hsiao, C. C. (2015). Exploring student perceptions, learning outcome and gender differences in a flipped mathematics course. *British Journal of Educational Technology*. doi:10.1111/bjet.12278
- Cheng, X. (2000). Asian students' reticence revisited. *System*, 28(3), 435-446.
- Chou, S. (2017). *The number of international students coming to the US has steadily risen. Will Trump reverse the trend?* Retrieved from [www.pri.org/stories/2017-02-03/number-international-students-coming-us-has-steadily-risen-will-trump-reverse](http://www.pri.org/stories/2017-02-03/number-international-students-coming-us-has-steadily-risen-will-trump-reverse).
- de Araujo, Z., Otten, S., & Birisci, S. (2017). Mathematics teachers' motivations for, conceptions of, and experiences with flipped instruction. *Teaching and Teacher Education*, 62, 60-70. doi:10.1016/j.tate.2016.11.006
- De Hei, M. S. A., Strijbos, J.-W., Sjoer, E., & Admiraal, W. (2015). Collaborative learning in higher education: lecturers' practices and beliefs. *Research Papers in Education*, 30(2), 232-247. doi:10.1080/02671522.2014.908407
- Du, S.-C., Fu, Z.-T., & Wang, Y. (2014, 12-13 April). *The flipped classroom: Advantages and challenges*. Paper presented at the International Conference on Economic, Management and Trade Cooperation, April, Xi'an, China.
- Eddy, S. L., & Hogan, K. A. (2014). Getting under the hood: how and for whom does increasing course structure work? *CBE-Life Sciences Education*, 13(3), 453-468. <https://doi.org/10.1187/cbe.14-03-0050>
- Elmaadaway, M. A. N. (2017). The effects of a flipped classroom approach on class engagement and skill performance in a blackboard course. *British Journal of Educational Technology*. doi:10.1111/bjet.12553
- Feledichuk, D., & Wong, A. (n.d.). *The impact of a Flipped Classroom on international student achievement in an undergraduate economics course*. Retrieved from [www.cloudfront.ualberta.ca/-/media/arts/research/april/flippedclassroom.pdf](http://www.cloudfront.ualberta.ca/-/media/arts/research/april/flippedclassroom.pdf).
- Grunspan, D. Z., Eddy, S. L., Brownell, S. E., Wiggins, B. L., Crowe, A. J., & Goodreau, S. M. (2016). Males under-estimate academic performance of their female peers in undergraduate biology classrooms. *PLoS ONE*, 11(2): e0148405. <https://doi.org/10.1371/journal.pone.0148405>
- Haugh, M. (2016). Complaints and troubles talk about the English language skills of international students in Australian universities. *Higher Education Research & Development*, 35(4), 727-740. doi:10.1080/03075070120099359
- Howitt, C., & Pegrum, M. (2015). Implementing a flipped classroom approach in postgraduate education: An unexpected journey into pedagogical redesign. *Australasian Journal of Educational Technology*, 31(4). <https://doi.org/10.14742/ajet.2439>
- Hwang, G.-J., Lai, C.-L., & Wang, S.-Y. (2015). Seamless flipped learning: a mobile technology-enhanced flipped classroom with effective learning strategies. *Journal of Computers in Education*, 2(4), 449-473. doi:10.1007/s40692-015-0043-0
- ICEF Monitor. (2016). *Canada's international student enrolment up 8%*. International Consultants for Education and Fairs (ICEF). Retrieved from <http://monitor.icef.com/2016/11/canadas-international-student-enrolment-up-8/>.
- Jensen, J. L., Kummer, T. A., & Godoy, P. D. d. M. (2015). Improvements from a flipped classroom may simply be the fruits of active learning. *CBE-Life Sciences Education*, 14(1), 236-243. doi:10.1097/ACM.0000000000000086
- Kennedy, P. (2002). Learning cultures and learning styles: Myth-understandings about adult (Hong Kong) Chinese learners. *International journal of lifelong education*, 21(5), 430-445. doi:10.1080/02601370210156745
- Kim, M. K., Kim, S. M., Khera, O., & Getman, J. (2014). The experience of three flipped classrooms in an urban university: an exploration of design principles. *The Internet and Higher Education*, 22, 37-50. doi:10.1016/j.iheduc.2014.04.003
- Lee, B., Farruggia, S. P., & Brown, G. T. (2013). Academic difficulties encountered by East Asian international university students in New Zealand. *Higher Education Research & Development*, 32(6), 915-931. doi:10.1080/07294360.2013.806444
- Liu, J., Blocher, J. M., Armfield, S., & Moore, E. (2017, 5 May). *Modified Flipped Classroom: A Project-Based Spiraling Curriculum Model to Support Learning Efficiency and Engagement*. Paper presented at the

Society for Information Technology & Teacher Education International Conference, Austin, TX.

- Lizzio, A., Wilson, K., & Simons, R. (2002). University students' perceptions of the learning environment and academic outcomes: implications for theory and practice. *Studies in Higher Education, 27*(1), 27-52. <https://doi.org/10.1080/03075070120099359>
- Mantzourani, E. E., Courtier, N., Davies, S., & Bean, G. (2015). Perceptions of faculty in health care and social sciences on teaching international students. *Currents in Pharmacy Teaching and Learning, 7*(5), 635-644. <https://doi.org/10.1016/j.cptl.2015.06.018>
- McCarthy, J. (2010). Blended learning environments: Using social networking sites to enhance the first year experience. *Australasian Journal of Educational Technology, 26*(6), 729-740. doi:10.14742/ajet.1039
- Michalak, R., Rysavy, M. D., & Wessel, A. (2017). Students' perceptions of their information literacy skills: the confidence gap between male and female international graduate students. *The Journal of Academic Librarianship, 43*(2), 100-104. doi:10.1016/j.acalib.2017.02.003
- O'Flaherty, J., & Phillips, C. (2015). The use of flipped classrooms in higher education: A scoping review. *The Internet and Higher Education, 25*, 85-95. doi:10.1016/j.iheduc.2014.04.003
- Owens, J., & Lilly, F. (2017). The influence of academic discipline, race, and gender on web-use skills among graduate-level students. *Journal of Computing in Higher Education, 1*-23. doi:10.1007/s12528-017-9137-1
- Parr, N. (2015, May 25). *Who goes to university? The changing profile of our students*. The Conversation. Retrieved from <https://theconversation.com/who-goes-to-university-the-changing-profile-of-our-students-40373>.
- Pechenkina, E. (2015) Who needs support? Perceptions of institutional support by Indigenous Australian students. *UNESCO Observatory Multi-Disciplinary E-Journal in the Arts, 4*(1), 2-17
- Savani, K., Alvarez, A., Mesquita, B., & Markus, H. R. (2013). Feeling close and doing well: The prevalence and motivational effects of interpersonally engaging emotions in Mexican and European American cultural contexts. *International Journal of Psychology, 48*(4), 682-694. doi:10.1080/00207594.2012.688131
- Sheppard, B. E., Elliott, N. C., & Baese-Berk, M. M. (2017). Comprehensibility and intelligibility of international student speech: Comparing perceptions of university EAP instructors and content faculty. *Journal of English for Academic Purposes, 26*, 42-51. doi:10.1016/j.jeap.2017.01.006
- Talbert, R. (2017). *No, you do not need to use video in flipped learning (and five alternatives)*. Retrieved from <http://rtalbert.org/flipped-learning-without-video/>.
- Trahar S. (2007) Teaching and learning: the international higher education landscape—some theories and working practices. Higher Education Academy. Retrieved from <http://escalate.ac.uk/3559r>
- Umbach, P. D., & Wawrzynski, M. R. (2005). Faculty do matter: The role of college faculty in student learning and engagement. *Research in higher education, 46*(2), 153-184. doi:10.1007/s11162-004-1598-1
- Valencia, R. R., & Solórzano, D. G. (1997). Contemporary deficit thinking. *The evolution of deficit thinking: Educational thought and practice*, 160-210.

**Contact author:** Ekaterina Pechenkina, [epechenkina@swin.edu.au](mailto:epechenkina@swin.edu.au).

**Please cite as:** Pechenkina, E. (2017). Flipping diverse classrooms: Instructor experiences and perceptions. In H. Partridge, K. Davis, & J. Thomas. (Eds.), *Me, Us, IT! Proceedings ASCILITE2017: 34th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education* (pp. 354-363). <https://doi.org/10.14742/apubs.2017.777>

Note: All published papers are refereed, having undergone a double-blind peer-review process.