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Flipped learning

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Introduction

Two of the earliest advocates of flipped learning, Jon Bergmann and Aaron Sams, have described this approach to instruction as a strategy where work that was 'traditionally done in the class is now done at home, and what was traditionally homework is now completed in class' (Bergmann & Sams, 2012: 13). Bergmann and Sams were American high school teachers who began 'flipping' their chemistry classes in 2007. They recorded their explanatory lectures so that students could watch these at home, and the students then spent their classroom time working together on practical problems.

The approach gained rapidly in popularity, especially following an influential article in the Wall Street Journal and a TED talk by Sal Khan¹, the founder of Khan Academy, in 2011. The Khan Academy, generously funded by philanthropic foundations, produces educational videos for a variety of school subjects. These are hosted on YouTube: the Khan Academy channel has, at the time of writing, over 5.5 million subscribers and the 7,500 videos have had over 1.7 billion views. Following the early enthusiasm for flipped learning, especially in high school maths and science classrooms, many English language teachers, mostly in higher education, have adopted the approach.

The term 'flipped learning' is used almost interchangeably with the term 'flipped classroom'. The former has been preferred in this paper, as it places emphasis on learning, as opposed to teaching (Brinks Lockwood, 2014: xvi). Flipped learning typically (but not necessarily) involves watching videos online before students come to class, therefore it may also be considered a form of blended learning² (Hockly, 2017: 144).



¹ The TED talk by Sal Khan, 'Let's use video to reinvent education', has been viewed over 5 million times and can be accessed at https://www.ted.com/talks/sal_khan_let_s_use_video_to_reinvent_education?language=en

² For more about blended learning, see Anny King's (2016a) paper in this series: *Blended Language Learning*. She defines 'blended learning' as the mixing different media (e.g. print, audio, and video) with classroom interaction.

Flipped learning and English language teaching

The definition of flipped learning that was offered in the opening sentence of the introduction is uncontroversial but not particularly informative. It assumes that listening to a teacher's lectures represents a significant proportion of classroom time, which can be flipped with pre-recorded videos. When conceived in this narrow way, the flipped model does not, 'at first sight [...] appear to offer much to language learning' (Johnson & Marsh, 2016: 60). There are, in some ELT contexts, some explanatory or expository presentations that might appropriately be viewed in video format before a face-to-face class. Examples include grammar presentations, instructions about written genres or test-taking tips. However, it is unlikely that very large amounts of classroom time are taken up by such activities in most ELT contexts.

Recognising the limitations of the brief definition of flipped learning, Jon Bergmann and his colleagues (Bergmann et al., 2013) stress that flipped learning should not be seen as synonymous with online videos. In fact, there is no absolute need for technology to be involved in any way at all. In terms of procedures and materials, flipped learning offers a very loose model. According to Bergman and Sams (2012: 11), 'there is no single way to flip [a] classroom [...] every teacher who has chosen to flip does so differently'. It is preferable, they write, to think about flipped learning as 'more about a mindset: redirecting attention away from the teacher and putting attention on the learner and learning'.

One of the objectives of flipped learning is to provide opportunities for communication between students during class time as they work together to solve a problem. This will resonate with communicative language teachers who see their primary role as facilitators of meaningful communication between learners.

Interest from language teaching specialists in learner-centred approaches goes back a long way, at least to the 1970s³. By the 1980s, phrases such as 'learner-centred' or 'student-centred' (and closely related terms) appeared as the most frequent modifiers of 'instruction' in journals and conferences of foreign language education (Altman & James, 1980). Interest has not diminished since, so it is not surprising that ELT professionals have wanted to explore the potential of flipped learning. This is evidenced, for example, in conference presentations. At the 2013 TESOL Convention, three papers were devoted to the topic. Two years later, this number had jumped to more than 30 (Bauer-Ramazani et al., 2016: 430).

³ An account of early interest in learner-centred approaches can be found in the proceedings of a conference at Stanford entitled 'Individualizing Foreign Language Instruction' (Altman & Politzer, 1971).

Another reason why flipped learning may appeal to language teachers lies in one of its key objectives, which is to provide opportunities for communication between students during class time, as they work together to solve a problem. This will resonate with communicative language teachers who see their primary role as facilitators of meaningful communication between learners. In both flipped and communicative language classrooms, the students are 'engaged in active learning and negotiating meaning' (Voss & Kostka, 2019: 9–10). When language teachers have shared this objective, many have adopted a kind of flipped learning by freeing up classroom time for communicative activities by assigning more formal study tasks (of grammar, for example) as home study before the class. This practice goes back a long way and was, in fact, the motivation behind the writing of 'English Grammar in Use' by Raymond Murphy (Murphy, 1985) in the 1980s (Cook, 2014). As Webb and Doman (2016: 40) observe, 'much of what flipping entails is similar to what language teachers have been doing for decades'.



The potential advantages of flipped learning

It has been claimed that flipped learning can address 'one of the major challenges of language instruction', namely the lack of time needed for learners to receive sufficient exposure to the target language (Kostka & Marshall, 2017: 224). This is, however, questionable. The fact that learners devote self-study time to preparation for a class, as opposed to follow-up from a class, does not in itself generate more available time for study. The distinguishing feature of flipped models is that the learning activities, both in and out of the classroom, are reconceptualised. Approaches to flipped learning start, as the title of one influential article puts it, with one question: 'What is the best use of my face-to-face class time?' (Bergman, 2012).

In many English language teaching contexts, the best use of class time is likely to be 'communicative pairwork and groupwork, i.e. activities that encourage students to practise using the language' (Hockly, 2017: 144), for the simple reason that this is one of the hardest things to facilitate outside the classroom. At the same time, there are a number of activities, including extensive reading, writing, listening and grammar exercises (Hockly & Dudeney, 2017: 241) that may, with relative ease, be moved out of the classroom.

However, decisions about precisely which parts of a language learning programme to flip will vary from context to context, depending on the potential

advantages and the main learning objectives. These potential advantages are summarised below.

THE POTENTIAL ADVANTAGES OF FLIPPED LEARNING	
PERSONALISATION	<ul style="list-style-type: none">• Helping with specific learning difficulties• Self-pacing• Offering a personal choice of study material• Providing individual support
ACTIVE LEARNING	<ul style="list-style-type: none">• Focussing on 'higher order skills'• Facilitating increased interaction between students• Creating more opportunities for useful feedback
ENGAGEMENT AND ATTITUDES	<ul style="list-style-type: none">• Addressing classroom management issues• Encouraging learner 'ownership' of learning• Promoting contact between school and parents / carers

Table 1: A summary of the potential advantages of flipped learning

Personalisation

Interest in flipped learning developed at the same time as a renewal of interest in personalised learning⁴ and the importance of personalisation in flipped approaches cannot be understated. According to Bergman and Sams (2012:2), 'the flipped classroom can address the needs of students [...] by allowing their teachers to personalize the students' education'. The ways in which personalisation can be achieved include the following:

- 1 Helping with specific learning difficulties (SpLDs)
- 2 Self-pacing
- 3 Offering a personal choice of study material
- 4 Providing individual support

1. Helping with specific learning difficulties (SpLDs)

In a class of twenty or more students, there is a high statistical probability of finding at least one learner with some kind of learning difficulty⁵. It is not always easy to address the needs of these learners in conventional classrooms. In, for example, a grammar-focussed lesson, a guided discovery approach may be appropriate for many of the students in a group, but more direct and explicit explanations may be more helpful for some learners with specific learning difficulties. A variety of technologies may help to meet different learning needs, and these are often easier to deploy in blended approaches than in the face-to-face classroom. Examples include word-processing software to modify font size and style, captioned videos, speech recognition, text-to-speech software and screenreaders⁶. Delaney (2016) provides a useful guide to using assistive technology to support English language learners with specific needs in high schools.

2. Self-pacing

Allowing learners to determine the amount of time they spend studying, and (in theory at least) the speed of their progress, is a key feature of most approaches to personalised learning. Any group of learners will include differences in ability, aptitude, attention, interest and motivation, and some will be able to process certain kinds of information more quickly than others. Frustration with the lockstep pace that was forced on him at school led Sal Khan of the Khan Academy (mentioned in the introduction) to make individual pacing an important element in his educational approach (Ferster, 2014: 132).

In a flipped approach, learners may take as much or as little time as they need with learning tasks. They may choose to supplement explanatory material (of grammar or vocabulary, for example) with additional sources, such as grammar reference material, grammar videos or dictionaries. With audio and video, they can listen or view as often as needed, using pause, rewind or even speech-to-text software. With written content, they can use dictionaries and translation software, as needed. The possible result of such self-pacing is that when students go back to the classroom, 'they are better prepared and feel more inclined to ask questions, solve problems and interact with their peers' (King, 2016b: 90).

3. Offering a personal choice of study material

It is not necessarily always the case that learners should work on the same material in preparation for their face-to-face classes. In the case of grammar and vocabulary study, students with varying levels of language proficiency can use different materials (if these are available). Some may prefer or benefit from different kinds of presentation (for example, guided discovery or inductive approaches versus more explicit or deductive approaches) and different kinds of delivery (text-based or video-based). In the case of preparation for a communicative classroom task, a selection of texts from different sources or in

4 In 2014, one commentator (Cavanagh, 2014) observed that 'personalised learning' seems to be everywhere. National governments and philanthropic foundations around the world supported, and continue to support, initiatives that promote personalised learning. See Bulger (2016) for a discussion of the extent of the support for personalised learning.

5 The National Center for Learning Disabilities (2014) found that approximately 5% percent of American public school students have learning disabilities of one kind or another. The most common difficulties cited in the report that impact on language learning are dyslexia, dysgraphia (difficulties with writing), difficulties with seeing and hearing, and ADHD.

6 Screenreaders convert texts and images into speech or Braille. Versions are available for most operating systems.

different formats (articles, podcasts, videos, etc.) may be made available. In both cases, it may be feasible to allow learners to choose from these options.

4. Providing individual support

Bergmann and Sams (2012: 23) noted that after they introduced a flipped approach, they spent most of their classroom time 'walking around helping the students who struggle most'. When a class is occupied in communicative pair or group work, it is easier for a teacher to identify those learners who need more support, it is easier for learners to signal their needs, and it is easier for the teacher to find the time to provide it.

Active learning

In what is often referred to as a 'traditional' classroom, students sit, typically in rows, and spend a lot of time listening to the teacher reading aloud or giving explanations. In a general language class, these are often explanations of grammar and vocabulary, and may not be too long. In CLIL (Content and Language Integrated Learning) and EMI (English as a Medium of Instruction) contexts, teacher talk may be substantially longer.

- 1 Focussing on 'higher-order skills'
- 2 Facilitating increased interaction between students
- 3 Creating more opportunities for useful feedback

1. Focussing on 'higher-order skills'

The cognitive processing skills that learners bring to this kind of 'passive' listening are usually considered to be 'lower-order' skills (see the simplified diagram of Bloom's revised taxonomy⁷). The main tasks for the students are remembering and understanding what they hear.

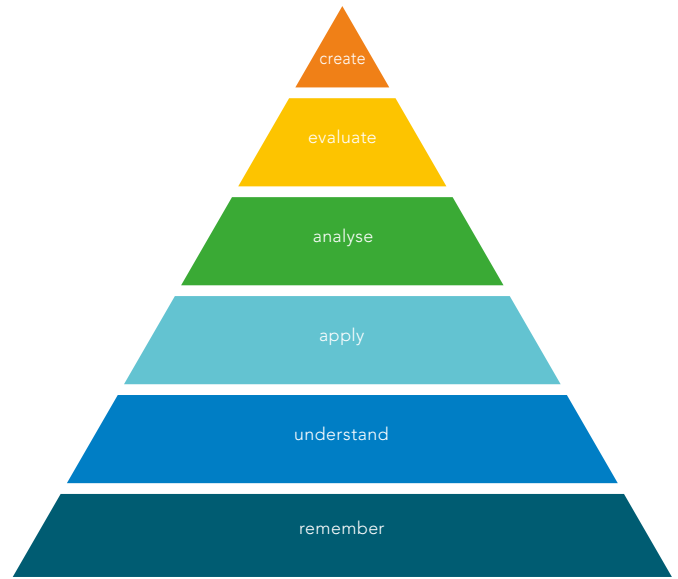


Figure 1: A simplified version of Bloom's taxonomy of cognitive skills, based on Anderson & Krathwohl (2001)

If such listening or reading has been completed as self-study, before students come to class, time may be freed up for the 'higher-order' skills of analysing, evaluating and creating (Kostka & Marshall, 2017: 227). In an effectively flipped classroom, write Johnson and Marsh (2016: 62), 'student-led discussions, collaborative work, problem solving and critical thinking arise spontaneously'.

2. Facilitating increased interaction between students

Prioritising 'higher-order' skills in this way requires a more participatory role from the learners. Extended student interaction is a necessary condition to carry out the tasks. Learning takes place as students are offered wide exposure to language (from their peers or from texts they are working with), as they have multiple opportunities to produce their own language, and through the feedback that they will receive on their language production (Kostka & Marshall, 2017: 227).

7 Benjamin Bloom developed three models to describe educational objectives. The most well-known of these deals with cognitive operations (Anderson & Krathwohl, 2001) and is frequently cited in discussions of 21st-Century skills.

3. Creating more opportunities for useful feedback

Flipped learning has the potential to increase opportunities for student-student feedback, whilst the number and length of teacher-student feedback interactions may depend on class size and the types of task and/or methods of instruction in class. The amount of feedback teachers provide should potentially increase, as they will have more time to focus on their role as monitor and feedback-giver⁸.

Bergmann and Sams (2012) report that when they flipped their classrooms, they discovered 'something amazing [...] because we were not just standing and talking at kids, many of the classroom management problems evaporated.'

Engagement and attitudes

- 1 Addressing classroom management issues
- 2 Encouraging learner 'ownership' of learning
- 3 Promoting contact between school and parents / carers

1. Addressing classroom management issues

Difficulties in paying attention in class, which some students experience, is no doubt exacerbated by learners being required to listen to teachers for extended periods of time. Besides deriving little or no benefit themselves from classroom time, bored or inattentive students may also be a disruptive influence and negatively impact on the learning of their peers. Bergmann and Sams (2012: 29) report that when they flipped their classrooms, they discovered 'something amazing [...] because we were not just standing and talking at kids, many of the classroom management problems evaporated. Students who needed an audience no longer had one.'

This 'amazing' transformation is almost certainly something of an overstatement, but it highlights the potential of flipped learning to promote more active learning and a more constructive classroom atmosphere. Student engagement in learning processes is a prerequisite for effective learning. In Mercer and Dörnyei's list (2020: 129–141) of principles for maintaining engagement, the provision of appropriate cognitive challenge is at the top of the list. Their second principle is 'maximise enjoyment, minimise boredom'. Flipped learning lends itself to the realisation of both of these principles.

2. Encouraging learner 'ownership' of learning

A further potential advantage of flipped approaches is that they may encourage a sense of student ownership of the learning process, and this, in turn, may also contribute to more learner engagement. Engagement, write Mercer and Dörnyei (2020: 35), 'will only take place if students feel some degree of control and ownership of their learning'. This may arise when students are involved in collaborative, cognitively interesting tasks, where they feel a 'responsibility for how their knowledge [which has been gained prior to the lesson] is applied' (Johnson & Marsh, 2016: 62). Self-pacing (see above) may also help learners 'take charge of their learning, [...] to feel empowered to direct their own learning' (King, 2016b: 90).

⁸ For a discussion of the importance of feedback (including peer feedback), see Kerr, P. (2020).



3. Promoting contact between school and parents / carers

Some schools have discovered that the introduction of flipped learning has led to improved communication with parents / carers, along with greater parental involvement. Parents or carers of younger learners need to have access to the material that their children are using online, and an online parent forum may well be necessary so that questions can be asked and problems resolved. One school in London (Allen, 2013) has reported a 'big positive impact' as parents could 'understand and relate to what their child is learning in the classroom'. Bergmann and Sams (2012: 30) also found that many parents loved the videos themselves!

Some schools have discovered that the introduction of flipped learning has led to improved communication with parents / carers, along with greater parental involvement.

Only limited research on student attitudes towards flipped learning is available, but what there is appears to be generally positive (Voss & Kostka, 2019: 4). This may, in part, be attributable to the fact that flipped learning usually leverages digital technology in the work that is carried out before the class. As one advocate of flipped learning claims, 'today's students grew up playing video games and using computers, and they seem to like them' (Brinks Lockwood, 2014: 24). Bergmann and Sams (2012: 20) state that 'flipping speaks the language of today's students'. It is important, however, to be wary of such claims. Novelty effects wear off, and in the absence of research carried out over a longer time span, we should not assume that the findings of published research are broadly applicable⁹.

⁹ Voss and Fang (2016), for example, found positive attitudes from university students in China and the United States towards flipped learning. However, their sample size was small (77 students, of whom over a third did not enjoy watching the out-of-class videos) and the time frame for the research was only one semester.

The role of the teacher in flipped learning

In order to help teachers realise the potential benefits of flipped learning, the Flipped Learning Network (a non-profit, online community of educators who are interested in flipped learning) has developed a set of four principles (called the 'Four Pillars') to guide instructional practice (Flipped Learning Network, 2014). These principles are:

1 A flexible environment

2 Learning culture

3 Intentional content

4 Professional educator

1. A flexible environment

The traditional arrangement of chairs and desks with students sitting in rows and the teacher at the front is probably not the most conducive to productive, interactive lessons. Rearrangements of furniture may be necessary. At the same time, teachers will need to be more flexible about when their students learn. For teachers to operate in this way, they will usually need institutional approval and support.

2. Learning culture

With a shift away from a teacher-centred model of instruction towards a more learner-centred approach, the teacher will need to create meaningful opportunities for all students to interact. Activities should be scaffolded

(different students may require different kinds of scaffolding) and feedback may be personalised to make it more relevant.

3. Intentional content

Teachers will need to decide what kind of content they intend to teach themselves and what content may be more accessible when students are working on their own. These decisions will need to be informed by a consideration of how best to maximise the potential of classroom time.

4. Professional educator

While the teacher may be less visibly central in flipped approaches, their role is perhaps more important than in traditional classrooms. The planning of learning involves both self-study material and tasks (which may, to some extent, be personalised) and classroom activities. During the class, the teacher will closely monitor their students' work, provide feedback, and assess their work. They will need to keep records of their observations to inform their approaches (to planning and classroom management) in subsequent lessons. In addition, they should reflect on their own practice and collaborate with colleagues in order to improve their teaching. Institutional support will be needed to facilitate this process.

Seen in this light, flipped learning may require a significant reconceptualisation of the teacher's role. This table, based on a list of teacher roles in Ur (2012: 17–18), summarises these changes. Roles at the top of the table will take on greater importance in flipped learning; those at the bottom will decline in relative importance.

TEACHER ROLES		
↑	ACTIVATOR	Ur describes the role of 'activator' as 'getting the students to use English' in speaking, writing, reading or listening. With a greater importance attached to communicative activities in the face-to-face part of flipped learning, the careful choice/design of tasks that make communicative language use possible becomes crucial.
	PROVIDER OF FEEDBACK	With more opportunities for learners to produce language, there are more opportunities for teachers to monitor the learners' output and to give feedback on it.
	SUPPORTER	The more active the students' role in the class, the more they will benefit from encouragement and support. When students are working individually, they will also need support in terms of guidance with learning strategies and choice of learning materials.
	MANAGER	The teacher's role as a manager is central to the success of a communicative activity. Providing clear instructions, the organisation of learner groupings, and ensuring that everyone is on-task will all be key teaching skills.
	MOTIVATOR	The teacher's ability to motivate students is arguably their most significant role in all contexts. However, in flipped learning, with students working more independently, motivation is even more crucial.
→	ASSESSOR	The need for formal, summative assessment is not changed in flipped approaches. However, since flipped learning is likely to be more learner-centred than traditional classrooms, continuous, formative assessment is likely to play a greater role, allowing the teacher to modify their approach to help learners, both individually and collectively.
↓	INSTRUCTOR	The traditional teacher role of providing explanations becomes less important when students are accessing instructional material independently, but may retain its significance when teachers are responding to individual queries.
	MODEL	Learners should be exposed to multiple models of the language when they are involved in self-study. The teacher's role as the provider of accurate and appropriate language models is therefore diminished.

Table 2: A summary of the changes in teacher roles in flipped learning, based on a list in Ur (2012: 17–18)

Research into flipped learning

A huge amount of material about flipped learning is available online and it is almost invariably enthusiastic. When taking the potential advantages of the approach into consideration, it clearly offers ‘a potentially exciting model’ that is ‘pedagogically sound’ (Johnson & Marsh, 2016: 62–63). There is, however, ‘[a lack of] empirical evidence in support of the approach’ (Webb & Doman, 2016: 40) and little robust research into flipped learning in English language learning contexts. Unfortunately, the research that is available does not provide unequivocal support for flipped learning.

At least three meta-analyses of research into flipped learning have been published in the last two years. All of these (Cheng et al., 2019; van Alten et al., 2019; Låg & Sæle, 2019) found that there was only a small correlation between improved learning outcomes and a flipped approach. A part of this difference may be attributed to publication bias¹⁰, making the small correlation smaller still. It is therefore difficult to attribute the small gains in learning outcomes to flipped learning.

There are many variables in the research (for example, the age of the students or length of the research study), making it difficult to compare different studies. Perhaps the most significant variable, and one which is almost impossible to measure, is the extent to which the teachers adhered to the four pillars of flipped learning (Flipped Learning Network, 2014), which were described earlier. It is possible that the learning gains that were observed may

be the result of a greater focus on active learning, rather than any other aspect of flipped learning. One group of researchers (Jensen et al., 2015) came to precisely this conclusion when they compared a flipped approach with a non-flipped approach that prioritised active learning.

Two of these meta-analyses (van Alten et al., 2019; Låg & Sæle, 2019) also looked at student satisfaction. Neither found that flipped learning had any significant positive impact on student attitudes.

Although it appears that most studies point to the benefits of flipped learning, there is usually more enthusiasm than there is empirical evidence.

Not all of the studies that made up these meta-analyses were especially well designed. One recent study, however, carried out with students at the United States Military Academy (Setren, et al., 2019), was rigorously designed: it had a large sample student size and variables were controlled more carefully than is the norm. The results of this study gave no more grounds for enthusiasm than the meta-analyses mentioned above. It found that a flipped approach

¹⁰ Studies that have nothing significant to report are less likely to be published than those that have positive findings.

led to gains in learning outcomes in some subjects but not in others. More worrying were the findings that:

- (1) these gains were short-term, not long-term, and
- (2) the achievement gap between stronger and weaker students was widened.

Relatively little research into flipped learning has been carried out in ELT contexts. The only systematic review of this research (Turan & Akdag-Cimen, 2019) looked at only 43 articles, not all of which were of high quality in terms of research design. Although it appears that most studies point to the benefits of flipped learning (Turan & Akdag-Cimen, 2019), there is usually more enthusiasm than there is empirical evidence.

More recently, scholars are beginning to argue that attempts to compare the effectiveness of technologically-enhanced approaches, such as flipped learning, with technologically-lite approaches are asking the wrong research question. To flip or not to flip, as the title of one paper (Egbert et al., 2014) puts it, is not the question to be asking. The important questions, rather, are:

- (1) to what extent do the potential advantages of flipped learning match the theories of learning that underpin the educational approach of the institution and the teachers who work there?
- (2) to what extent will institutions and teachers be able to respond to the challenges that flipped learning creates?

It is to these challenges that we will turn in the next section.



The challenges of flipped learning

Enthusiasm for flipped learning is predicated on a number of assumptions that should not be taken for granted. For all its potential, it is not 'entirely unproblematic' (Hockly & Dudeney, 2017: 241) and teachers and institutions frequently report a number of challenges (Turan & Akdag-Cimen, 2019). This section will consider these challenges and the ways in which they may be responded to.

THE CHALLENGES OF FLIPPED LEARNING

Non-completion of assigned work

Effective self-regulation

Technological issues

Learner and teacher expectations

Non-completion of assigned work

A flipped approach assumes that communicative, group-based activities in the classroom have been prepared for, before the class. If this preparation has not taken place, the value of the communicative activity is undermined. Unfortunately, in most contexts, it is not possible to assume that all students will have completed this preparatory work. It has been estimated that 'generally 73–80% of students complete the outside-of-class flipped tasks

regularly' (Webb & Doman, 2016: 56). It may also be expected that students complete more assignments at the beginning of a course, do less as the course progresses, and become more assiduous again towards the end.

There are two common responses to this problem, neither of which has much to recommend it, although they may seem expedient in the short-term.

- 1] Isolate unprepared students, at the back of the room, to complete the work before they can join the rest of the class (Voss & Kostka, 2019: 24). Punitive measures of this kind are highly unlikely to enhance motivation and, in any case, run counter to the learner-centred approach that flipped learning seeks to foster.
- 2] Begin the face-to-face class by explaining again for the benefit of students who came unprepared. This, however, is counter-productive. If a teacher does this, students soon realise that they do not need to do the pre-class work (Hockly, 2017: 144).

As all teachers know, there is no simple solution to the problem of students not doing homework. It is a challenge that is usually best tackled over a longer period, as part of a broader programme of building learners' intrinsic motivation. This may be supported by an evaluation scheme that encourages completion of pre-class work. Schemes of this kind often work best when they form part of a wider institutional approach to evaluation.



In immediate practical terms, Hockly (2017: 145) suggests that it may be better to start lessons with 'a quick diagnostic speaking activity with students, and for those who have clearly not done the pre-class work, put them to work in groups of students who have done the work. They will soon realise that they are not taking full advantage of the learning opportunities by coming to class unprepared'.

have this. Left to their own devices, there is a chance that they will 'misregulate their learning, exerting control in a misguided or counterproductive fashion and not achieving the desired result' (Kirschner & van Merriënboer, 2013: 177). It is no doubt for this reason that one review of the evidence failed to find 'convincing evidence in favour of giving learners control over their instruction' (Scheiter, 2014: 491).

Effective self-regulation

With the increased importance that is attached to independent study, it is necessary for learners to know (or learn) how to set themselves appropriate goals, organise their time and find appropriate resources. This requires a degree of self-awareness at a cognitive and emotional level (McMahon & Oliver, 2001). Unfortunately, many learners, especially younger or less successful ones, do not

For flipped learning to stand a chance of being effective, many students will need training in study skills both before and during their independent study. In addition, they may need access to support while they are studying.

For flipped learning to stand a chance of being effective, therefore, many students will need training in study skills both before and during their independent study. In addition, they may need access to support while they are studying. One review of the literature on flipped learning (Akçayır & Akçayır, 2018) found that problems understanding and completing assignments was (along with non-completion of the work, which is often the result of such problems) the most commonly cited challenge that teachers faced. Voss and Kostka (2019: 26) recommend that 'students have some way of asking questions and receiving help as they learn new concepts outside the classroom'. Some sort of communication channel with their teacher and peers will be necessary, and may have cost and technological implications for institutions.

Technological issues

Not all students have access to either a suitable device (tablet, laptop, etc.) or reliable data connections outside the classroom. When this is the case, it may be necessary for the school or college to make provision for students to do their flipped preparatory work in an appropriate space on the premises. Some students may also not have the necessary computer skills and will need some training, especially if a platform is being used for the delivery of some content.

If teachers are involved in producing learning materials, they may require IT skills, knowledge of a variety of digital tools and even hardware that they do not have. Producing high-quality materials and maintaining them (e.g. making sure they do not date or that web links do not disappear) can be very time-consuming (Kvashnina & Martynko, 2016: 73). Teachers will need institutional support. At the same time, institutions will need to consider carefully both the set-up and longer-term costs of the technology that will be deployed in flipped approaches.

Learner and teacher expectations

Students who are used to more teacher-centred models of language learning may find it difficult to adjust to flipped learning (Kostka & Marshall, 2017: 232). Their resistance to change may also be compounded by anxieties and a perception, especially at the start, that their workload will increase. As with any change to pedagogical methods, the rationale will need to be explained and students' concerns listened to. One way of easing the transition is to try out 'one or two flipped approach classes, and then getting feedback from your students on this approach' (Hockly, 2017: 145).

If an institution wishes to introduce flipped learning, it will need to be managed carefully and sensitively, as, without the 'buy-in' from teachers, it is unlikely to succeed.

If an institution wishes to introduce flipped learning, it will need to be managed carefully and sensitively, as, without the 'buy-in' from teachers, it is unlikely to succeed. The approach may conflict with some teachers' perception of what their job should entail. It will almost certainly cause some anxieties about new skills that need to be acquired. Again, negative attitudes may be compounded by a likely increase in teachers' workloads, especially at the start of the transition. Teachers will need to be supported and trained.

Concluding remarks

A flipped approach to learning clearly has much to offer but, as with any methodological change, it presents a number of challenges. It will work best with students 'who are motivated and able to spend additional time completing online activities at home' (Bauer-Ramazani et al., 2016: 435). It may be for this reason that flipped learning has been more widely used with adults than younger learners in ELT contexts. Hockly (2017: 145) advises teachers to consider whether their students 'are mature enough for a flipped approach'. If the decision to adopt a flipped approach is taken, it is recommended that this is done gradually: teachers can 'begin by flipping a small portion of their class' before increasing the amount of instruction they flip (Voss & Kostka, 2019: 19).

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A gradual introduction of flipped learning is also advisable for institutions. This will give time to address negative attitudes towards flipped learning (on the part of both students and teachers) and encourage 'buy-in', identify and address training needs, and resolve any technical issues.



Appendix 1: Flipped learning in practice

The examples of flipped learning in practice that follow have been chosen to illustrate the variety of things that the approach can mean in ELT contexts. Each example begins with a brief description of the context in which the approach was used, followed by an account of the procedures and a short evaluation. The examples that have been selected also reflect the most typical contexts in which flipped learning in ELT has been tried out. Despite its origins in secondary school classrooms, flipped learning has been embraced most widely by English language teachers working in higher education. In a recent systematic review of articles written about flipped English language learning (Turan & Akdag-Cimen, 2019), 85% of the reports concerned university contexts whilst only 10% focussed on primary or secondary settings.

1. Grammar instruction in a Saudi secondary school

(Al-Harbi & Alshumaimeri, 2016)

Context: Twenty secondary school students in Saudi Arabia, following a general English course.

The students in this class were using a standard international coursebook ('Traveller'¹¹), described by its publishers as a combination of 'solid grammar and

vocabulary practice and a thorough preparation in all four essential skills in language learning'. According to the authors of the report, English language teaching in Saudi schools typically attaches great importance to grammar instruction, where a teacher-centred approach is normal and students have limited opportunities for 'interaction, participation, and practice of English during regular classes' (Al-Harbi & Alshumaimeri, 2016: 61).

The teacher selected a number of grammar areas from the coursebook and then identified instructional videos from YouTube that addressed these areas. Three days before the face-to-face lesson, the teacher uploaded links to the videos on the Edmodo platform, which both the teacher and students were already familiar with. The students watched the videos in their own time and were able to make comments and post questions for the teacher on the platform.

The face-to-face classes began with a discussion of the videos to allow the teacher to check that everyone had watched them, and to answer any questions. There followed a collaborative activity or game, which required the students to use the target grammar. Students then completed exercises from the coursebook in groups and exchanged their books for peer correction. The teacher moved around the classroom, monitoring and providing feedback.

¹¹ Further information about this coursebook series can be found at the publisher's website: <https://www.mmpublications.com/Secondary-Adult/Traveller-British>

The trial lasted six weeks and a total of seven class periods. In comparison with a control group that followed a more traditional approach, no gains in grammatical knowledge were found. However, the experiment was considered a success as (1) students' attitudes towards the approach were positive, (2) there were more opportunities for communication, and (3) a degree of learner autonomy was promoted.

2. Developing writing skills in a Colombian university

(Buitrago & Díaz, 2018)

Context: Thirty-two undergraduates (with a variety of majors) following a compulsory general English course in a Colombian university. The flipped part of this course – the writing workshops – was only one part of the course. The level of the students was B1+.

One of the objectives of the department of foreign languages at the university delivering the course is to 'seamlessly include technology in the classroom' (Buitrago & Díaz, 2018: 73). Objectives of this kind are not uncommon and often precede the decision to flip parts of some courses. The practical advantages, as in this case, are that the department is technologically well-equipped and that both students and teachers have experience of using technology.

Before the face-to-face lessons, students were required to watch instructional videos about grammar and writing structure and read model texts that were hosted on a Moodle platform. Some of these videos were selected from YouTube; others were created by members of staff. While watching, students carried out tasks, such as completing charts. Students were also required to carry out independent online research (e.g. into the features of a compare-and-contrast essay).

Face-to-face lessons began with a quiz in order to check that the videos had been viewed. Kahoot!¹² was used for these quizzes because it was thought to be 'a fun way to engage students in doing the proposed out-of-class

activities' but also because it can provide teachers with data about the extent to which students have engaged with the self-study tasks. The rest of the lessons were devoted to a range of pair and small-group activities involving the writing skill. The teacher moved around the classroom, monitoring and supporting as needed. Peer feedback played an important role in the lessons.

The teacher-researchers concluded that the flipped approach improved the quality of their students' work, made them more aware of their learning process, and fostered a more positive attitude towards writing (Buitrago & Díaz, 2018: 79). As part of the trial, an end-of-course questionnaire for students was also developed. This was based on the 'Four Pillars' of the Flipped Learning Network (see 'The role of the teacher in flipped learning') and the results demonstrated that the great majority of students felt that the course had closely adhered to the principles of the 'Four Pillars'.

The greatest challenge encountered during the trial was the 'poor study habits and time management skills' of some students and 'their constant failure to fully prepare for class sessions'. However, this challenge had been overcome by the end of the course.

3. English for engineering in a Russian university

(Kvashnina & Martynko, 2016)

Context: Forty-two second-year undergraduates (majoring in engineering) in a Russian university following an ESP course designed to develop communicative competence, 'as well as introducing them to the main concepts and notions of engineering by means of English' (Kvashnina & Martynko, 2016: 72).

A Moodle platform was used to deliver a range of resources including PowerPoint presentations, animated videos and podcasts on relevant topics (e.g. Materials Science) that had been developed specifically for the course. Students studied this material in their own time, completing some

¹² Kahoot! is a very widely-used app that is used for the creation and administration of educational quizzes. More information can be found at the company website: <https://kahoot.com/>

tasks that were either subject-specific or language-related, and following links to supplementary materials.

In the face-to-face class, the teacher began by using short oral quizzes to check the students' overall understanding of the material that had been studied. This was sometimes followed by a teacher-led discussion of the supplementary resources that had been accessed. Students then worked in small groups on a problem-solving task that required knowledge gained from the pre-class resources. Proposals from the different groups were presented and evaluated. While the students were working in groups, the teacher facilitated the process of group discussions, provided language help and assessed the students' performance.

The trial lasted one semester and was considered a success, not least in the promotion of higher-order thinking skills. In comparison with a control group, which followed a more traditional approach, significant gains in English language skills were observed. In addition, most students expressed positive attitudes towards flipped learning. Lower level students felt more confident when they came to the face-to-face class. Students also felt that they had developed their autonomous learning skills.

The authors of the report commented on the challenges of adopting a flipped approach and these reflected the list of challenges discussed earlier in this paper. They noted the importance of closely monitoring students' online preparatory work, suggesting that such monitoring needs 'to be visible and felt by the students' (Kvashnina & Martynko, 2016: 73), for example through forums and teacher comments.

Appendix 2: Technological tools for flipped learning

It is becoming increasingly common for general English coursebooks from major publishing houses to be produced in digital versions, where all or part of the course is accessible to students working independently. The content is often hosted on a platform that allows teachers to know which content individual students have covered and how well they have done it. With digitalised materials of this kind, it is easy to adopt a flipped learning approach. Teachers can select which aspects of the course they wish to flip. Listening (audio and video) and reading exercises are often chosen because learners may derive more benefit from approaching these in their own time. However, vocabulary and grammar presentations (with instructional videos and / or guided discovery animations) are also popular options for flipping.

Teachers who are not working with such digital packages will also benefit from having a platform, such as Moodle, which allows for content (or links to content) to be hosted, for learners to communicate with each other and with their teacher outside of class time, and for students' work to be tracked. If an institution is considering the introduction of flipped learning, it will need to consider carefully which platform best suits its needs.

It is, of course, possible to host and share content and links in a cloud storage service, such as Google Drive. Simpler still is to use email and attachments or to direct students to particular apps (digital flashcard apps for vocabulary learning, for example). For many purposes, and especially for teachers experimenting with flipped learning for the first time, technological solutions like these will be adequate.

Flipped learning is commonly associated with the use of video, but it is not the most appropriate tool for all learning purposes (Bergmann & Sams, 2012: 35). If videos are to be used, the greatest challenge that teachers and institutions probably face is finding or producing videos of sufficiently high quality (Bergmann & Sams, 2012: 36). There are, for example, thousands of videos providing explanations of grammar rules available on YouTube, but very few can be recommended. Better, quality-controlled practice of grammar¹³ can usually only be found behind a paywall.

The alternative to selecting online videos is producing them oneself. This has two clear advantages:

- (1) it is possible to ensure that the content is really appropriate for the class, and
- (2) many learners appreciate hearing the voice of their own teacher.

13 'English Grammar in Use' (5th Edition) by Raymond Murphy (Cambridge University Press, 2019), for example, is available as an in-teractive e-book for tablets.

Video creation is, however, time-consuming and requires some technical skills. A lecture format with the teacher standing in front of a whiteboard is relatively easy and is the most common format in the YouTube grammar videos. Generally preferable is to use screen-casting software, which allows you to capture whatever is on the screen of the desktop, while recording a voice-over. Many such tools¹⁴ are available. Basic tools are free but for more sophisticated video production, it may be necessary to pay a subscription. *'Flip your Classroom'* by Bergmann and Sams (2012), which is freely available online, contains useful advice about producing videos. Russell Stannard's YouTube channel¹⁵ contains a wide range of videos that offer further guidance on using specific tools.

14 Examples include Clarisketch (<https://www.clarisketch.com/>), Educreations (<https://www.educreations.com/>), Ezvid (<https://www.ezvid.com/>) and Screencast-O-Matic (<https://screencast-o-matic.com/>)

15 Russell Stannard's YouTube channel can be accessed at: <https://www.youtube.com/user/crete1987>

Recommendations for further reading plus useful websites

Teachers of English for Academic Purposes (EAP) will find the following titles particularly useful. The practical ideas in the first of these books are designed for English classes at university level, but teachers of general English classes in upper-secondary and tertiary institutions will also find ideas that they can adapt.

- Brinks Lockwood, R. (2014). *Flip It! Strategies for the ESL Classroom*. Ann Arbor: University of Michigan Press.
- Voss, E., & Kostka, I. (2019). *Flipping Academic English Language Learning*. Singapore: Springer.

Two websites that provide resources and links to a variety of tools, videos, tutorials, videos and podcasts are especially recommended. The first of these is concerned with all aspects of flipped learning. The second is devoted to flipped learning specifically in language classrooms.

- The Flipped Learning Network Hub – <https://flippedlearning.org/>
- The Flipped Language Classroom Resources – <https://www.miscositas.com/flipped.html>

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Available at cambridge.org/pedagogy

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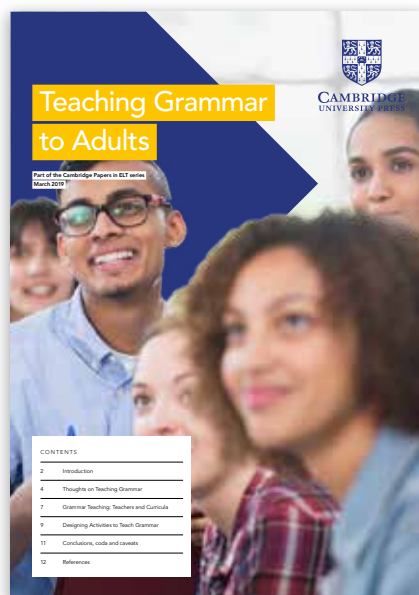
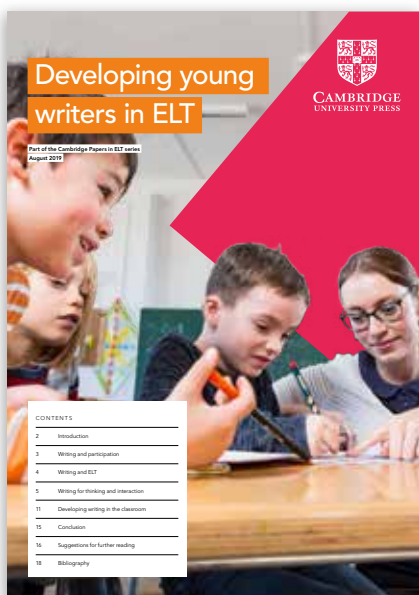
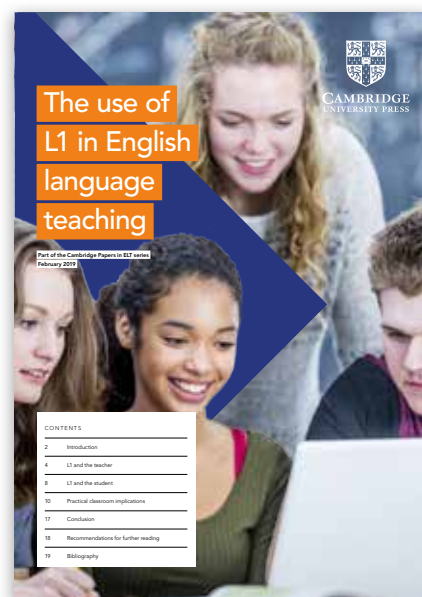
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