

Instructional videos as part of a ‘flipped’ approach in academic writing

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Abstract

This paper reports on a project in which students watched short instructional videos on aspects of academic writing as part of a ‘flipped classroom’ approach at an English-medium university in the United Arab Emirates. The authors present the video tutorial project in the context of the flipped classroom, and evaluate student satisfaction with the video input. The findings suggest that although most students liked watching the videos at home, and found the input easy to understand, they still felt the need for teacher explanations. One conclusion from this study is that students are not yet ready for a complete flipped classroom in which all the input is given through the video. In this context, a mix of video input and teacher explanation is more appropriate.

Introduction

In September 2012, the three federal higher education institutions in the United Arab Emirates began incorporating the use of iPads into teaching and learning with a view to promoting mobile learning (“learning with handheld devices” – Hockly, 2013, p. 80) both inside and outside the classroom. This mode of learning allows students some control over delivery and pace of learning at a remote location (Staker & Horn, 2012); one aim of this initiative was to encourage teachers and student to extend the learning experiences and interaction beyond the classroom. All students and instructors were given an iPad, materials were available in iBook format, and the nature of the classroom and the learning activities changed considerably.

This paper reports on a small-scale research project which built on out of class learning by giving input through short video tutorials as part of a ‘flipped classroom’ approach (Bergmann & Sams, 2012) in an academic writing course. Due to the need to complete a number of objectives in a very limited time, faculty were concerned with the quality of the teacher–student interaction in class time. It was felt that a considerable portion of the lesson was spent *explaining to students* how to carry out certain activities, or how to format their writing, rather than interacting with students in small groups, giving qualitative feedback on their work, and answering questions and queries. Since mobile devices were an integral part of the students’ life both in their studies and their private, social life, the authors felt that they could leverage this interest and enthusiasm to extend learning outside the classroom, and thus give more time to in-class participation. The authors created a flipped classroom model in which the explanations that would normally be given in class were moved into a short teaching video in order for class time to be used for more interactive activities and one-on-one support of students’ work.

The video tutorial input is a fundamental part of the flipped approach (Egbert, Herman & Chang, 2014), but there has been little empirical research into the effectiveness of learning in this way (Hung, 2015), or the features of an optimal video tutorial (Kearney & Schuck, 2006). The aim of this particular study was to evaluate Gulf students' satisfaction and confidence with receiving input in the form of video tutorials, as compared with teacher input in the classroom (rather than to examine directly its effectiveness in promoting learning).

A flipped classroom

The flipped classroom is part of a blended learning model in which students have some control over "time, place, path and/or pace" of learning (Staker & Horn, 2012, p. 3). A definition of a flipped approach which the authors utilised is

a pedagogical approach to blended learning in which the typical activities of classroom lectures followed by homework in traditional teaching procedures are reversed in order, and often supplemented or integrated with instructional videos. (Hung, 2015, p. 81)

In other words, what was formerly done in class is done at home, and what was formerly done at home is now carried out in class (Bergmann & Sams, 2012). A flipped classroom is based on both pragmatic and pedagogic rationales. Firstly, because the delivery of input online in the form of a video tutorial, it is the students' responsibility to access the input and ensure it is completed before class. Secondly, since students have had the input at home, teachers no longer spend their time explaining and lecturing in class; instead they can work with students more in a one-on-one tutorial mode, which may be a more effective way to support struggling students. Thirdly, since learners these days live in a multi-modal world and have access to practically unlimited resources on-line, learning does not have to take place only in 'bricks-and-mortar' establishments (Staker & Horn, 2012, p. 3): flipping the classroom builds on the already existing mobile technological tools which students use outside the classroom. Finally, students can watch and listen to the video tutorial as many times as they need. This not only helps to reinforce learning of the content, but also gives students a chance to review the lessons later on in the course. The way teachers may flip their classroom can vary: for example, rather than instructional videos, the pre-lesson input can be in the form of readings. Basically, a flipped approach helps students better prepare for class work, thus freeing up more time for class interaction and class participation (Hung, 2015).

The use of instructional videos in the classroom is well documented in the literature on teaching (Greene & Crespi, 2012). Karppinen (2005) argues that using digital videos as part of pedagogical procedures can support the notion of meaningful learning. Karppinen (2005)'s notion of meaningful learning is that which is active, constructive and individual, collaborative and conversational, contextual, guided, and emotionally involving (p. 236). For the purposes of this research we have chosen to focus on three constructs: individuality, guidance, and motivation. *Individuality* relates to how the learner's own learning preference is accounted for, and also how much autonomy the learner has in the learning process. Digital videos promote individuality and flexibility, as students can access the input at any time and in any place (Staker & Horn, 2012), as well as receive input through a variety of sensory styles. *Guidance* can be defined as "how a learning environment is designed" (Karppinen, 2005, p. 242) and relies on structured tasks. Instructional videos are guided through the step-by-step instructions in the video input. Optimum time for an instructional video is 5-10 minutes (Holtzblatt & Tschakert, 2011), thus the teacher is required to be concise, and prepare beforehand. Students are also *motivated* by the use of visuals, sounds, and text (Enfield, 2013). Hung (2015) argues that in-class lectures usually require

lower order thinking skills (Krathwohl, 2002), and so because classroom lectures are replaced by instructional videos, there is more time in class for higher-order thinking skills. Receiving input through an instructional video also acknowledges the learners' environment which is dominated by technology, the internet, and accessibility of a variety of mobile devices.

Reports on flipped classrooms tend to come out of research in Science, Technology, Engineering and Maths (STEM) subjects (Hung, 2015). There has been very little research into using the flipped approach in an English language learning context (Egbert et al, 2014; Hung, 2015). This may be because STEM subjects have traditionally been taught with a deductive approach (starting from general principles rather than from specific examples), which is easier to "package" into a short instructional lecture video. Nevertheless, we felt that it would be possible to prepare short instructional videos on academic writing as part of a course on this topic, and as part of a flipped approach for our second language learners.

Some studies have suggested the flipped classroom may not suit all learners and all contexts. Strayer (2007) reports on research in which found that learners who were in a flipped classroom were less satisfied with the guidance in the learning tasks. Strayer also concludes that learners felt an "unsettledness" (p. 197) in the flipped classroom. Similarly, some reports have highlighted that despite the input being in the form of an instructional video, students still wanted the input in class as well (Egbert et al, 2014). Despite these possible drawbacks, the authors felt that a flipped approach would encourage the students in this context to be more independent and engaged through a flipped approach to their academic writing course. Flipping the classroom would also allow more class time to be spent on quality interaction.

Method

A total of 40 students took two composition classes which included a flipped classroom approach; 22 participants gave their informed consent to be part of the evaluation. Participants were Arabic speaking Emirati female students taking their second composition class in a series of three semester-long classes. The students were expected to write a five-paragraph academic essay on the topic of 'heroes', including a thesis statement, concise paragraphs which include topic sentences, quoted/paraphrased researched support with in-text citations, and students' response. Development of the writing process lasted about eight weeks; once the students had completed their research and decided on their sources, they had to work on their essay outline and thesis statement, write an introduction, develop their body paragraphs with topic sentences and supporting points, integrate their evidence from the sources to support their arguments, and write a conclusion.

For each of the stages of this process, the authors prepared instructional videos which the students were expected to watch as well as complete the embedded tasks outside classroom time. The authors used the iPad application Educreations (Educreations, 2014) which can be accessed from laptops, desktop computers, or any other smart device using a web link that Educreations provides once the video is ready. This link can simply be e-mailed to students. Educreations is an educational software/tool that 'turns an iPad into a recordable whiteboard'. It allows users to replay voice, handwrite and draw, add photos from iPad camera, photo albums and the Web, animate images by dragging them around, underline or circle text, and pause and resume recording. The teachers created short video mini-lessons in which they wrote and posted visuals including media, pictures and graphics, on a virtual whiteboard and talked over them as they recorded each lesson.

There were a total of six video lessons on teaching points related to the essay. The first video focused on the concepts in the essay and included a brainstorming task. The second video focused on how to write a thesis statement with a task for students to prepare one. The third video focused on making an outline, and the teaching point of the fourth was how to incorporate evidence into the outline. The final two videos focused on how to write an introduction, and how to write a conclusion. Each video lasted between 4-6 minutes, and was interspersed with short tasks which required the students to stop the video and either research, find a definition, take notes, or find examples. Students were expected to bring their notes from the task to class for the initial warm-up stage of the following lesson. For example, in the initial brainstorming video, students listened to an introduction of the topic of heroes. They were then required to stop the video and look up a definition of “hero”. They then watched input on qualities of heroes, followed by a section in which they stopped the video and researched their own hero and their qualities. Students were then required to bring these notes to class.

The teachers first had an introductory lesson with the students in which they modeled how to use the Educations video and how to complete the embedded tasks. This involved watching a video together in class, stopping and explaining the rationale for the different stages and tasks. Teachers also highlighted the need to bring notes from the tasks to the following class. For each stage of the writing process, students were assigned the video input outside of lesson time. The links were available on the university’s learning management system (Blackboard). The lesson following each video followed a similar procedure. In the warm-up stage students and teacher discussed the tasks, and shared notes. The students then had an opportunity to clarify any points from the video. Following this, students spent the rest of the class time writing parts of their essay. They were expected to use their notes from the instructional video, and teachers had an opportunity to monitor students, answer questions, and give one-on-one support. Students also collaborated and helped each other. The instructional video freed up class time for both the students and the teacher to focus on the actual writing process, with constant feedback from the teacher and interaction.

We noticed that because input was given before the class, students were more prepared, more confident, and ready to clarify misunderstandings about their writing. They were ready to ask questions and engage purposefully in the writing process. We feel that this was a significant change from our previous class procedures in which teachers would lecture on aspects of academic writing, without actually spending time on writing in the class.

At the end of the course, 22 students completed a questionnaire which consisted of the following questions:

1. Do you watch the videos the teacher sends you?
2. How often do you watch them?
3. Do you find them useful?
4. What do you find useful in the videos?
5. Do you find the videos help you understand the topic?
6. If yes, why?
7. Would you rather watch the video or have the teacher explain in the class?
8. Why?
9. Do you like having the lesson in a video?
10. Why / Why not?

Findings

In this section we present our findings on student use and satisfaction with the instructional videos as part of the flipped approach. These are presented in the light of frustrations teachers had with class time spent on lectures, as well as the need to promote individuality, provide guidance, and encourage motivation.

In general, an overwhelming majority of the students responded that they watched the videos more than once. Many of the students responded that they found the videos useful. Some of the common themes are discussed below.

Clarity of the explanation and 'step-by-step' organization of the input

Most of the students commented that the explanation of the input was clear. Terms like “clear” and “easy” came up repeatedly. One student commented that in addition to “making the topic easier”, the videos also did not take much time.

The students also mentioned that the step-by-step manner of the organization of the tasks enabled them to better understand the topic. Three students noted that the videos were useful because they followed steps, which enabled them “not to get confused” and “made the topic easier to understand”.

Opportunity for review

The students commented on how the videos were useful for review purposes, especially when they missed a class. Some comments on this theme were: “I can repeat several times and write notes”, “I can repeat the videos many times any time until I understand the topic”, and “If I am confused, I go back to the video”.

Support from visuals, sounds, and text

Several students commented that the videos helped them understand the topic better through the use of visuals, sounds, and text.

Students noted that the combination of various sensory stimuli supported their understanding of the input. One student commented “steps and pictures and voice helps me more”. This confirms the notion that both visual and auditory clues scaffold understanding of the concepts being taught. Some students commented on the fact that the written texts in the videos were in different colours. An important factor as well was variety of input. The instructional video was different to the usual teacher input in class. One student commented “different types of lesson help me understand”. Pictures, diagrams, and cartoons made the material more meaningful for the students, and helped them to remember the input. The combination of voice-over from the teacher, with text, pictures, and colour supported the input on academic writing.

Need for both video and teacher

Although the majority of the students responded positively to the video lessons overall, they pointed out that they still wanted the teacher to explain the main points of the video in class as well. This point was brought up in the responses of nearly half of the students. It was clear from the comments that they felt more confident with teacher explanation following the video. Although the warm-ups did include some discussion of points from the video, it seemed that students wanted detailed explanations similar to the video input.

One of the reasons for this was the perceived need to ask further questions and clarification. Students lacked the confidence to rely entirely on the video for input. One student commented that she could ask questions and then refer to the video for review purposes. It was felt that the video supported teacher explanations, rather than serving as input alone. One student noted that the video did give useful input, but teacher explanations deepened understanding “because video explains, but we need the teacher to understand more”.

The face-to-face interaction between teacher and student cannot be underestimated in explanations. One student commented “the teacher reaches students in many ways”. This further confirms the notion that the instructional video is useful, but it is through the interaction and classroom teaching methods that students felt they understood the input. A common theme was the need to stop the teacher and ask questions during the explanations. In reality though, students rarely stopped the teachers to ask questions. We believe that this perceived need stems from a lack of confidence in their ability to work individually with the input. However, it is interesting to note that there was enthusiasm for the video serving as support to the teacher explanations.

Negative comments

Few negative comments were made about the videos. One student noted that she did not watch the videos, while another commented that she preferred the teacher to the videos as she could “stop the teacher and ask questions” as the videos “made her sleepy”. This may again be relevant to different learning preferences and the degree to which the students are dependent/independent in their own learning.

Discussion

The results from this study indicate that the instructional videos as part of a flipped classroom approach to academic writing can motivate students and give confidence as part of preparation for class, but need to be supported with more teacher presence. The opportunity to receive input before the class did prepare the students for class work and allowed more time for in-class writing and teacher support. However, it is clear that the flipped classroom approach needs to be adapted to this particular context.

In terms of Karppinen’s (2005) characteristics of meaningful learning, the videos provided an aspect of *individuality* in learning. Students had to be self-directed to watch the videos, organise their time appropriately, and be ready to come to class with questions. Due to the tasks embedded in the videos, students had to complete the tasks individually and were accountable for their work in the following lesson. Students also appreciated the opportunity to watch the videos more than once. One result of the pre-class preparation work was that in-class explanations were reduced, giving more opportunity for question and answer sessions. Students were also exposed to a variety of multimedia, catering for different learning preferences.

Students were required to work *collaboratively* in class following the video input through discussions, sharing of tasks completed, and peer review. The learning of the new input was highly *contextualised* as it related specifically to their composition task on ‘Heroes’. The videos were prepared by the authors and spoke to the students’ specific needs for the final composition, through a step-by-step process.

The instructional videos provided *guidance*. The learning was guided throughout the videos themselves through tasks and a systematic approach to the content, as well as through the follow-up lessons. The step-by-step approach as part of a concise video lasting no more than five minutes provided scaffolding

(Walqui, 2006). Often the teacher was asked to explain again, which provided further guidance and clarification. The videos supported understanding of the concepts through their multi-media approach. Feedback suggests that the students found the video input *emotionally involving* and *motivating* through the use of pictures, sound, voice over, and tasks.

However, although the response to the flipped approach was positive, and most students found it useful to watch the videos at home before class, a large number of students wanted the teacher to repeat the input in class time. Although one of the aims of incorporating a flipped model was to reduce class time on teacher explanations, it was clear that students felt the need for consolidation in class. Arnold-Gaza (2014) suggests that one reason for the continued dependence on the teacher may be the increased responsibility on the students for their own learning and the increased workload out of class. Students in this research felt the need for face-to-face teacher explanations following the digital video in order to ask questions. However, we feel the instructional video did serve the purpose of raising schemata of the topic, engaging students prior to class, and reducing class time in long explanations.

Conclusions

Instructional videos as part of a flipped classroom has a lot to offer the students and teacher (Bergman & Sams, 2012; Hung, 2015). If the aim is to develop more autonomous learners, and to maximize interaction between students and teacher, then using videos as input for preparation with a focus on in-class writing can be an appropriate model for a second language academic writing class. However, as with all pedagogy, it must be examined in its particular social, cultural, and educational context (Bax, 2003). Egbert et al (2014) point out that

flipped instruction will not necessarily work for all students in the same way, any more than any other teaching strategy. (p. 7)

In this study, the authors used instructional videos for a semester-long academic writing course. Despite the positive response to the approach, and the acknowledgement by most students that the videos enabled them to study at their own pace and in their own time, it was clear that they were not ready for or comfortable with a complete flip, with all input given out of class. Students wanted the video input, and appreciated its benefits in terms of understanding concepts, but they also felt the need for in-class teacher explanations and input, as well as the opportunity to ask questions. This may be due to the nature of the topic (academic writing) and the fact that they were operating in a second language.

Using instructional videos as part of a flipped classroom approach is still a new and emerging pedagogy, and clearly there is a need for more empirical research on the impact and effectiveness of the approach (Goodwin & Miller, 2013), and in particular in a second language learning context (Egbert et al, 2014; Hung, 2015). There is growing evidence that it does work, but educators should be mindful that it is the context of the learning, and the needs of the student which should dictate to what extent and in what ways the classroom is flipped.

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