8 Video resources in a flipped language classroom: an experience of using videos to flip a Mandarin teaching module

Zhiqiong Chen[1]

Abstract

In this study, the author used the Flipped Classroom (FC) approach in one Mandarin teaching module with three types of self-produced videos as pre-class learning material. These videos covered grammar rules, usage of vocabulary, and explanation of texts. The paper first briefly explains the rationale of using such teaching videos. To investigate students' perceptions of using those teaching videos in FC, their feedback and video-viewing records were collected and discussed. The findings reveal that, although not every student used video materials, those who used them favoured grammar videos. To improve student engagement and interactivity of pre-class activities in FC, the author suggests that some pedagogical interventions could be applied in future FC approaches.

Keywords: flipped classroom, Mandarin, teaching video, student engagement.

1.   Introduction

To free up more in-class time for student interaction, the author adopted the FC approach in one of her accelerated Mandarin teaching modules, where students were introduced to the learning materials in video format before the class. The FC

approach has been practised in second language teaching and some studies have shown a positive impact on students' academic performance, their motivation, attitude to study, and engagement (Alsowat, 2016; Basal, 2015; Hung, 2015; Hojnacki & Häusler-Gross, 2014 cited in Tseng, Broadstock, & Chen, 2016, p. 18; Webb & Doman, 2016). There has been little discussion on how students perceive pre-class learning materials, especially when it is delivered in video format. The intention of the study was to investigate (1) how the students perceive such learning materials in FC; and (2) based on students' perceptions, what could be adapted in FC to help students during their self-study to prepare them for in-class teaching?

2. What I did

2.1. Using videos to introduce learning materials

In this study, the author transferred grammar and vocabulary knowledge, together with text explanations, to pre-class students' self-study time with three types of video, namely Grammar Videos (GVs), Vocabulary Videos (VVs), and Text Explanation Videos (TEVs). Video format allows the target language to be presented aurally alongside the written form, which helps to connect the Mandarin written form and the sound, as there is no correlation between them.

All three types of video are used to convey declarative knowledge. Criado (2016) states that foreign language learning can be considered skill learning, and to master a foreign language one needs to gain declarative knowledge, procedural knowledge, and automatised knowledge. She points out that "declarativisation demands explicit teaching on the intricacies of the grammatical features for their noticing and understanding" (Criado, 2016, p. 124).

It is commonly recognised that context-based learning helps second language vocabulary learning (Cohen & Aphek, 1980; Kroll & Curley, 1988; Snow, 2005 cited in Lan, Fang, Legault, & Li, 2015, p. 675). Recognising the role of context

in second language learning as a means of consolidating known knowledge, Nassaji (2003) suggests that to teach new words to ESL learners, teachers should spend time identifying, defining, and explaining new words explicitly first. When learning Mandarin vocabulary, Shen (2010) suggests that, whenever possible, visual images, such as pictures and visual actions, should be provided together with verbal explanation.

Therefore, in the author's GV, each new grammar rule was explained verbally in English to ensure understanding; then it was followed by examples which were read out in Mandarin. In each VV, depending on the words, apart from explaining the meaning, some of the following activities were presented: (1) illustrations linked to the meaning of the target word; (2) sentences/short paragraphs containing the target word; (3) comparisons with other vocabulary items which have similar meaning; and (4) explanations of Chinese characters' components. Such design aims to simulate contextual environments. Both GVs and VVs were produced using the online screencast tool, Screencast-O-Matic (S-O-M), based on PowerPoint presentation slides.

The third type of video in this study, TEVs, were used to clarify the meaning of selected parts of the textbook where students tended to have queries. The online tool EDpuzzle was used to insert aural explanations into the existing online videos in which native speakers acted out text conversations in natural settings. While listening to authentic conversations, students can hear some grammatical clarifications which aim to help their understanding.

Moodle was used as the delivery platform. Ten students who enrolled into this Mandarin module were involved in this study. Although the students had been learning Mandarin for at least one year, it was the first time they had experienced FC. The FC approach started at the beginning of the academic year and lasted two terms until the end of the module. The module had in-class teaching twice a week, on Tuesdays and Fridays. Each new set of video materials were assigned to students for self-study three days ahead of in-class teaching. Each student also had the textbook from which all the video teaching materials were based.

2.2.   Data collection

To understand students' perceptions of video teaching, both quantitative and qualitative data were collected via two methods: an end of module teaching questionnaire survey and the online video view records. Nine students out of ten who studied this module completed the survey, seven anonymously. Due to time limitations, there were no follow-up interviews. The questionnaire contains both open-ended and closed questions. In the questionnaires, participants were asked to list their understanding of both the advantages and disadvantages of each type of video. Table 1 shows students' views.

Table 1.   Advantages and disadvantages of each type of video: students' views

	Advantages:	Disadvantages:
Teaching grammar with videos	Be prepared before going to the lesson (with questions to ask) Can go back and make revision easier Go into details (more than the textbook) Spend class time to consolidate knowledge, ask questions Easier to absorb	No interaction with the teacher
Teaching vocabulary with videos	Learn correct pronunciation (need to read and write by oneself to memorise) Pictures, stories provided in videos assisted in learning and understanding Visuals and explanation help to remember words more easily Explain some meanings linked to other words	No interaction with the teacher Not personal learning style, prefer learning independently Drilling vocabulary has to be a personal task Not good for learning characters
Teaching texts with videos	Easy to relate to when watching texts being acted out with explanations straight after it Breaking down the video dialogue which is very fast Understand the texts better Draw attention to certain points which students wouldn't have thought to be problems	Should read/listen to the dialogues without interruption Some of the explanations are covered in the textbook

Eight out of nine participants listed various advantages with no disadvantages to GVs. One participant didn't think videos could replace the interaction of the teacher with the students; for her, for learning to take place and be memorable, it needed to be active. From her point of view, watching GVs and VVs at home is *solitary* and *passive*. Therefore, she didn't use both types of videos. In contrast to the number of positive respondents on GVs, only four participants thought VV useful. Among the other five participants, apart from the one who thought it was not interactive, the common belief was that vocabulary learning is a personal matter, not something that could be taught by videos. Regarding TEVs, seven out of nine participants felt they were helpful with different advantages, including the participant who did not watch GVs and VVs.

In the questionnaire survey, all the participants were also asked to choose when and how they watched each type of video from the following given categories: before the teaching, after the teaching, before the exams, or at any time when needed; watching each video with or without partially skipping the content. The retrospectively collected data which reflects what students normally did are shown in Figure 1 and Figure 2.

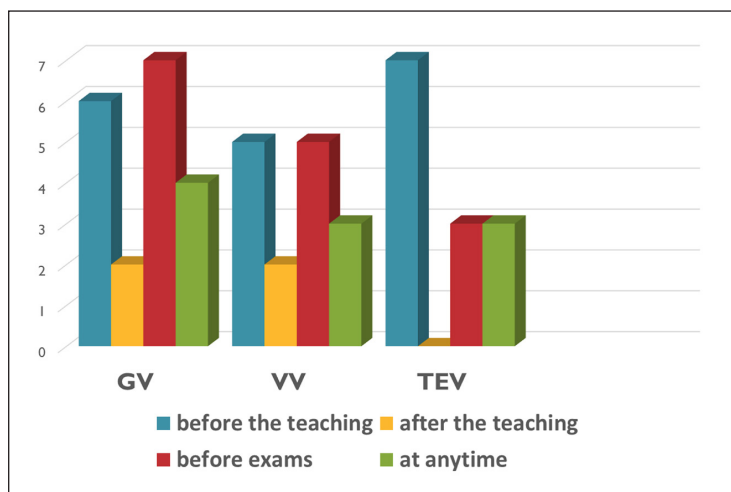Figure 1.   When the participants watched each type of video

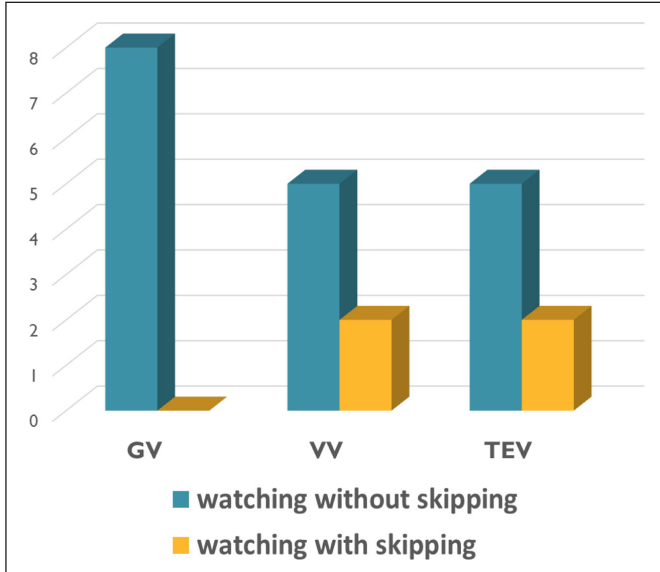Figure 2.   How the participants watched each type of video

Figure 1 and Figure 2 above show that most of the participants watched GVs before the in-class teaching and before exams without skipping. Similarly, VVs were watched mainly before the in-class teaching and before exams but by fewer participants. Some of them skipped part of the video while watching. TEVs were mostly watched before the in-class teaching and no one watched them immediately after the teaching. With regards to TEVs, some participants skipped sections of the videos while watching them.

Participants were also asked to tick the listed reasons that stopped them watching teaching videos with the choice to add their own reasons. One participant claimed that he/she had been watching all videos in the module teaching and another one did not like learning through GVs and VVs. The other seven all chose *having no time*. Among these seven, one of them also mentioned some videos were too fast to catch and VVs did not really help. The other student who had better listening skills mentioned TEVs did not help, as he preferred watching conversations without any interruption.

In addition to the questionnaire, the number of views of each video was tracked online through S-O-M and EDpuzzle. The following chart shows a section of the view numbers of some videos during the whole module teaching – the rest of the videos were also used by some other students for a different purpose.
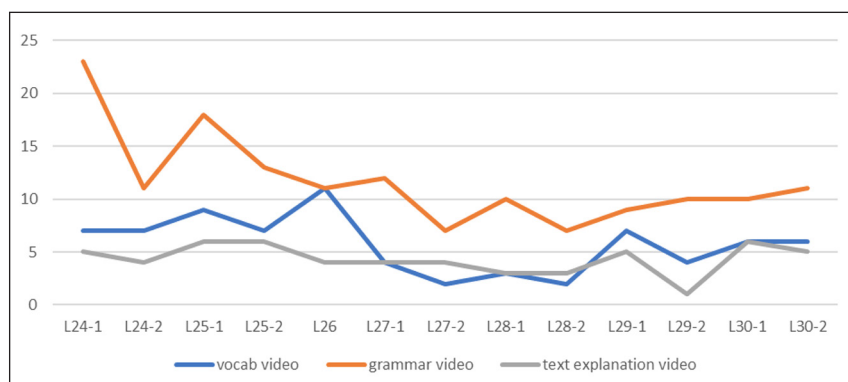
Figure 3.   Number of views of each video

Figure 3 shows that not everyone watched each video. Due to the limited functionality, S-O-M can only record the number of views rather than who watched which videos. For example, if someone watched the same video twice at different times, S-O-M will record two views. However, Figure 3 indicates that GVs were watched repeatedly most of the time. Compared with GVs, VVs have much fewer views, and ten out of the 13 videos were not watched by everyone. Since EDpuzzle can record each user's watching progress, the above chart shows that fewer than six participants watched all the TEVs.

3.   Discussion of outcomes

Among the three types of video, the data indicate that:

- participants gave most prominence to GVs. It suggests that using video to teach grammar rules is thought to be beneficial and needed. This

supports the claim of Criado (2016) and Webb and Doman (2016) that grammatical rules need explicit input;

- all three types of videos were not used just for pre-class self-study, but for revision, consolidation, or clarification purposes. This, to some extent, echoes the advantages of the FC approach in that it increases the retention of materials and allows students to learn at their own pace (Correa, 2015); and

- students watched videos selectively and not everyone used video materials for pre-class learning, which has not been mentioned in most FC research. Even though being considered useful, VVs and TEVs had fewer views, especially the latter.

Apart from personal reasons affecting participants' use of videos, such as time constraints, personal learning method preferences, and individual's language proficiencies, two participants also mentioned VVs and TEVs as not being helpful. Also, comments like *solitary* and *passive* in video teaching should not be ignored. Together with the fact that not everyone used video materials, the negative feedback indicated a need to make pre-class learning materials more engaging.

As the producer, the author could enhance the video design by making it more engaging and interactive. Bergmann and Sams (2012) suggest that instead of one teacher talking in his/her own videos, there could be a pair having conversations. Therefore, more than one perspective could be provided in videos. In addition, more advanced technology/software could be applied for delivering learning materials, for example a 3D Visual Environment (VE) in which students could be engaged through integration of sensory, motor, and action-based information. Lan et al. (2015) used Second Life as the platform in learning Chinese vocabulary and found that 3D VE contexts might enhance vocabulary acquisition which simulates immersive context. Moreover, playing digital video games also helps students retain vocabulary for a longer time (Ebrahimzadeh & Alavi, 2017). However, financial constraints would make it difficult for the author to make such adjustments and inevitably increase the upfront financial investment. It is more

feasible to adapt the learning design through pedagogical interventions, which do not involve costly technical adaptations. Thus, the following improvements could be considered.

First, to create a 'need to learn' before directing students to the teaching videos. For example, to design some online quizzes or questions for students to try with their current knowledge. Failure to complete such tasks could become an incentive for them to seek answers from teaching materials, either in video form or from other resources. This might further result in better understanding, as the 'productive failure' process also provides the opportunity for students to understand their own weaknesses, and then focus on some particular parts of the learning materials according to their needs. In this way, learning becomes more individually centred. With the online quizzes, feedback could also be added. If students use them again after self-study, they will be able to check their own progress and have a sense of achievement. O'Flaherty and Phillips (2015) point out that failure to provide formative feedback could cause less engagement with pre-class activity. Both 'need to learn' and getting feedback are fundamental in the learning process.

Second, to encourage learners to take notes while watching instructional videos. The benefit of taking notes in FC has been mentioned in different studies (Bergmann & Sams, 2012; Correa, 2015; Moran & Young, 2015; Muldrow, 2013; Tseng et al., 2016) and its importance in a successful FC has been addressed (Muldrow 2013; Tseng et al., 2016). With note-taking, students can undertake the learning in a reflective manner which could result in consciously engaging with learning materials.

Third, to create decontextualised practise to help vocabulary learning. To accommodate students' vocabulary learning needs and to correspond to the special orthography of Mandarin characters which require repetition to memorise the form and the sound, some decontextualised activities should be introduced alongside VVs to input vocabulary in various ways. Such activities could be online flashcards or picture-word matching activities. At the same time, there is also a need to foster students' awareness of context-based vocabulary learning.

Fourth, to reconsider the usage of TEVs. Instead of assigning such videos, a series of questions could be given out to check students' comprehension. These TEVs could then be used by weaker students who need further clarification.

4.   Conclusion

This study has provided a snapshot of students' perceptions of using three different types of teaching videos for self-study in a flipped Mandarin teaching module. Due to the small sample and limited data, the results might not be representative. However, the study shows although not every student used teaching videos for self-study, those who used them favoured GVs. To prepare students for in-class teaching in FC, it suggests that attention is needed in engaging students in pre-class learning materials. Consideration should be given to emphasising pedagogical intervention when financial constraints exist, which is the general issue that higher education institutions are currently facing. The next study should investigate the effectiveness of such interventions.

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