

Design and Development of Video Instruction Utilizing a Flipped Classroom Model: Implementing Examples of Synonyms “不” and “没”

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Abstract: During the spread of COVID-19 pandemic, online learning video lessons are essential for many schools and institutes since the videos can enhance the teaching based on the flipped classroom model during the pandemic. Therefore, designing and developing instructional videos to correlate with the concept of the model should be taken into consideration for instructors. The researchers believe that well-organized and effective interactive video lessons could positively affect students' learning experience as well as learning outcomes. To the best of our knowledge, however, well-rounded techniques and designs in developing teaching videos for online courses have not been much investigated. Then, the present conceptual paper aims to scrutinize a framework or guideline of how to develop an effective instructional video for teaching Chinese synonyms, implementing example of synonyms “不” and “没”. The presented model of video lessons for language teaching in this paper was conducted based on the ADDIE approach of instructional design methodology, the five formal teaching approaches and the three-dimensional grammar framework, and it is hoped that this new understanding should be useful and helpful to improve language teaching study and practice.

Keywords: Instructional video, ubiquitous learning, flipped classroom model

1. Introduction

Wu Hongbo (2021) stated in her study (A Survey of Foreign Students' Mastery of Synonyms and Teaching Strategies) that Chinese is one of the most difficult languages to learn, to differentiate and analyze two or more synonyms is one of the hardest structures for non-native speakers, as Chinese has various synonyms which are similar in both meaning and usage. The study by Wu Hongbo (2021) investigated 42 foreign students who passed the HSK level 5 and found that the correct rate was just 52.9% which is considered to be below the standard. Although establishing relationships between teacher and students, availing diverse types of teaching methods, stimulating interaction between teacher and students are the advantages of onsite learning, there are multiple obstacles inside the classroom as well. For example, pointless conversations or debates can take place which would potentially disturb the learning process.

For onsite teaching of Chinese synonyms, it is considered to be difficult for teachers to clearly explain and make students understand, able to differentiate and correctly use synonyms. The situation is even worse with the outbreak of COVID-19 since educational institutes and universities had to change their way of conducting classes to be online and adopted the flipped classroom model for courses. Consequently, classes tend to be conducted through several online platforms. As mentioned by Nantana Gajaseni (2021), there are many flexible educational methods, suitable for teaching methods which could be adopted during the spread of Covid-19, such as Online teaching, Blended learning, and Flipped classroom.

Since the way of teaching has been changed, in depth understanding of a model's concept for designing or creating online teaching materials is an important component that teachers need to consider. He Kekang (2014), Wang Fengdeng (2014), Cai Xinghong (2015) stated that the Flipped classroom model is a student-centered, instructional teaching model in which students learn basic knowledge independently before attending the class, then active learning experiences will be provided during the class time. Additionally, Zhang Xiaolei (2020) stated that teachers should not assume that students can consciously transfer and use their everyday face-to-face classroom learning abilities to the online learning process. Also, it is argued that the transfer of traditional face-to-face teaching design and material to an online learning environment would possibly result in the desired learning outcomes. As a result, the process of delivering and designing the teaching content to be suitable with students' needs should be well taken into account. Poquet, Lim, Mirriahi, & Dawson, 2018 stated that there is a growing interest in learning with instructional video study. Additionally, Hansch et al., 2015; Hollands & Tirthali, 2014; Means, Toyama, Murphy, Bakia, & Jones, 2009 reported that video is frequently used as the primary mode for online learning.

Taking all into consideration, the researchers believe that instructional video plays an important role in the online learning experiences and outcome for learners. The paper, therefore, aims to present a framework or guideline regarding the instructional video designing and development for flipped classroom model, implementing examples of synonyms “不” and “没”.

2. Design and Develop Chinese Synonyms Video Lesson for the Flipped Classroom

The process of creating a video lesson could be divided into two main parts which are the video designing work and the content designing work. However, for both parts, it is suggested to consider teaching theories that would affect in enhancing students' learning outcome.

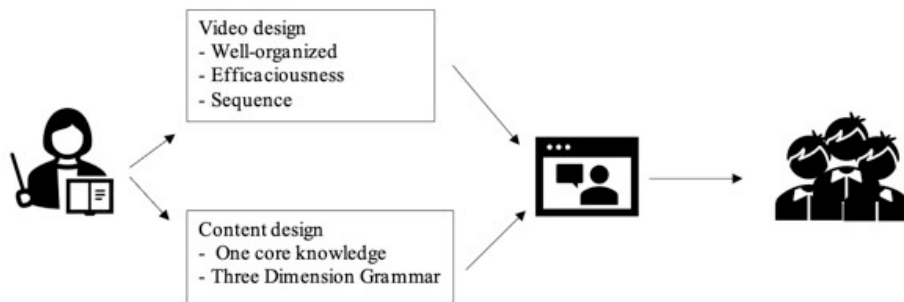


Figure 1. Two stages of video lesson design.

2.1 Video Designing Work

2.1.1 Well-Organized

The most important concept in creating the video lesson is that video lessons should be well-organized. In this phase, the ADDIE approach of instructional design methodology is the key in organizing and streamlining the production of the video. The name of the approach, ADDIE, is an acronym for the five stages of a development process: Analysis, Design, Development, Implementation, and Evaluation. We take Chinese synonym “不” and “没” as an example.

2.1.1.1 Analysis Stage

At this stage, teachers should start with a series of questions to form a clearer idea. The questions that teachers should consider are as follows.

1. What is the teaching goal? What achievements are students aimed to acquire after studying through the video lesson?
2. Is the teaching content suitable with students' language proficiency?
3. How many topics in the video? It is suggested that one video should contain only one topic.
4. What kind of teaching methods is going to be applied in the video? It is important to bear in mind multiple teaching resources and methods in the video could be used to enhance students' understanding, for example, pictures, videos, games, AI, etc.

2.1.1.2 Design Stage

Up until this point, the prototype or storyboard of the lesson should be, therefore, clearly formed by including a strategy, delivery methods, structure, duration, exercises, practice, etc.

2.1.1.3 Development Stage

The details and contents in the video will be conducted based on the storyboard, as well as adding graphics, media, choosing color, etc.

2.1.1.4 Implementation Stage

Since studying online enhances students to access learning videos and participate in classroom discussions anytime and anywhere. Consequently, platforms for online learning must be applied with consideration since teaching online can be done through various online platforms such as YouTube, Facebook, LMS, or etc.

2.1.1.5 Evaluation Stage

In this stage, teachers need to make a quiz or questionnaire. The quiz is aimed to provide the outcomes of the video whether students can comprehend the content. On the other hand, the questionnaire is intended to provide feedback on the teaching video from students after studying.

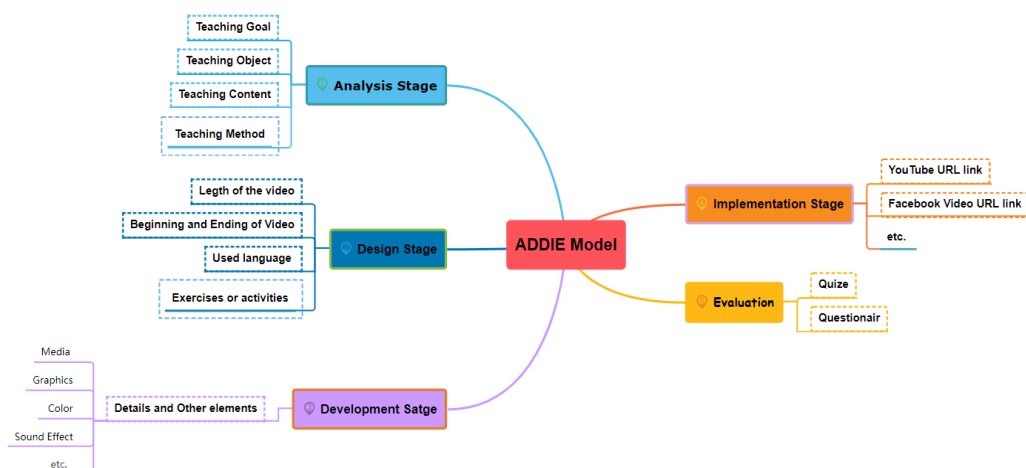


Figure 2. Research framework on video lesson design for Chinese language teaching.

2.1.2 Efficaciousness

After completing the outline of the video, the following issues that are needed to consider are factors that could affect students' learning experience and learning outcome. Li Manli and Zhang Xiaolei (2020) reported in their research that self-learning affects their learning whether in any model (such as MOOC, blended learning, distanced-teaching, or network-supported learning). Therefore, focusing on factors which affect students' learning experience and learning outcome under the self-remoted learning

environment is crucial in designing and developing video lessons. A study from Irani (2005) claimed that the online courses' designing and delivering have a massive impact on students' satisfaction, learning outcome and retention in the online courses. By drawing on the concept of online course designing, Simson and Du (2004) suggested that the experience of learners studying online using any technology is quite different from students onsite because during online sessions, the participation and class interaction in the course affects the students' learning experience and learning outcome. Vonderwell (2003) and Woods (2002) also reported in their studies that all the learning activities during online sessions affect the students' satisfaction with their online learning. For that reason, lack of sense of community and feeling of isolation in online class participation with peers and teachers negatively affects the students' learning experience. An efficacious video lesson, in that case, should provide multi-level interaction opportunities such as the presence of the teacher in the video or exercises that can stimulate the interaction between students and learning content. It is thought that if a video lesson includes all the mentioned elements, students' learning outcomes will be greatly improved.

2.1.3 Sequence

Before creating a video lesson, the first thing that needs to be planned is the length of the video. The study regarding the pioneer of flipped classrooms by Bergmann (2014) stated that the length of each video should be controlled within 15 minutes, and a video should contain only one core knowledge point. Moreover, Qu Baijin (2018) investigated regarding the duration of video through a questionnaire survey on the learner's demand for the duration of video learning after class for 142 foreign Chinese language learners and found that 53 people were surveyed who spent about one hour learning Chinese in class every day, accounting for 53 people. 37.3% of the total number of people surveyed. This study supports Bergman's study (2014) that the duration of a video lesson should be limited to 15 minutes. That is to say, if the content of teaching videos is overloaded, teachers may consider dividing the content into a series of videos which are not longer than 15 minutes.

Following the duration of the video, how many parts of the video lesson should be in 15 minutes is another point that should not be ignored. According to Herbartianism, the pedagogical system of German educator Johann Friedrich Herbart (1776–1841), advocated the five formal teaching approaches as a reference to design each part of the video. The five formal teaching approaches include preparation stage, presentation stage, comparison stage, generalization stage, application stage. The five sections with teaching design are shown in the below table.

① Preparation stage	② Presentation stage	③ Association stage	④ Generalization stage
<p>To have a clear image of the video. Teachers need to consider how to organize teaching.</p>	<p>This part should be able to catch students' attention, let them recall content they have learned before continuing studying added content.</p>	<p>Through the interaction between teachers and students, students may have a better outcome. Explain new content with the teacher's appearance during this section. Yang Jiumin(2021) and Pi Zhongling(2014) claimed in their studies that students' learning outcome is greatly better when teacher appears in the video.</p>	<p>This stage includes assisting students to classify and differentiate their thinking. Class activities and practice can sharpen their understanding.</p>
<p>Choosing content (one point for each video), Setting duration and teaching target.</p>	<p>Review previous content and bring in added content smoothly. (Teachers may open the video with serial questions and then develop updated content.)</p>	<p>⑤ Application stage</p>	<p>Guide learners how to apply the learned knowledge to actual situations. Making conclusions of the content and giving assignments to let them have a chance to use the learned knowledge.</p>

2.2 Content Designing Work

Synonyms are words that are normally related to grammar; it is believed that giving a simple idea of grammatical knowledge to students is necessary in synonyms teaching. Chia-Yin Chen, Hsien-Chin

Liou, Jason S. Chang (2016) reported in their study that the goal of grammar teaching is for students to know how to use them accurately, meaningfully, and appropriately. A Three-dimensional Grammar Framework by Larsen-Freeman (2001) described that “in dealing with the complexity of grammar, three dimensions must concern: structure or form, semantics or meaning, and the pragmatic conditions governing use.” Zhao Xin (2005) also stated that it is necessary to differentiate and explain from three aspects: semantics, syntax, and pragmatics, such as part of speech, collocation, sentence structures and patterns.

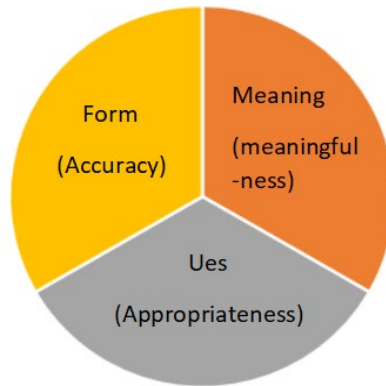


Figure 3. Three-dimensional grammar framework (Larsen-Freeman,2001).

We used the three-dimensional grammar framework to create an explanation picture for this pair of Chinese synonyms: “不” and “没” as an example:

	Semantics	Syntax	Pragmatics	Example
不	- Adverb - Don't/Doesn't	S. + 不 + V. + O.	Used to negate habitual actions, to express what you just are not in the habit of doing in the Present and Future	我不吃。 妈妈不看。 她不想跟我去。
没	- Adverb - Did not	S. + 没(有) + V. + O.	Used to negate past action, express that something did not happen in the past.	我没(有)吃。 妈妈没(有)看。 我没(有)写完

Part of speech and meaning. (Grammatical knowledge)

Form/Sentence pattern helps students use them accurately. (Accuracy)

Meaning and usage of two synonyms. Give an idea how different they are. (Meaningful-ness)

Example helps students have clearer understanding how to use them appropriately. (Appropriateness)

Teacher's appearance helps stimulating interaction between teacher and students.

3. Conclusion and Discussion

Chinese synonyms are one of the complicated structures in Chinese teaching which this paper seeks to explain the processes of improving teaching efficacy in the flipped classroom model with instructional videos. By reviewing previous literature and brainstorming, the idea on how to design and develop an instructional video based on the ADDIE instructional designing model, the five formal teaching approach, and the three-dimension grammatical framework are presented. The researchers believe that video lessons should be well-organized, efficacious, and sequenced. Also, the content of each video lesson should focus on only one core knowledge and limit the content not to be overloaded. Moreover, the length of the video is another issue that needs to be considered since it should not exceed more than 15 minutes. Furthermore, multi-level interaction should be provided to students since it could affect

students' learning experience and learning outcomes. However, a limitation of this paper is the sample size of the study since, data collection, analysis, and research findings. Considerably more work on survey research on students' satisfaction toward the presented model of instructional video will need to be done to determine the effectiveness of this design model which could be applied in other language teaching areas.

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References

- 汪娟,王晓凡. (2021). 基于教学设计提升MOOC视频教学成效. *宿州教育学院学报*. 24(03). 77-80.
- 吴红波. (2021). 留学生近义词掌握情况调查及教学策略. *中国多媒体与网络教学学报(下旬刊)*. 03, 76-78.
- 杨九民,艾思佳,皮忠玲,喻邱晨. (2021). 教学视频中教师出镜对教师的作用——基于对比实验和访谈的实证分析. *现代教育技术*. 31(01), 54-61.
- 清华大学本科教学组(2020). 学生的自主学习能力最终影响其在线学习的效果. *武汉交通职业学院学报*, 22(01), 17.
- 饶彬,金黎希,王怡(2018). 翻转课堂研究若干问题述评. *教育理论与实践*. 38(27), 49-51.
- 曲柏瑾(2018). 对外汉语翻转课堂教学中视频学习需求调查研究. *北京理工大学*.
- Chia-Yin Chen, Hsien-Chin Liou, Jason S. Chang. (2006). FAST – An Automatic Generation System for Grammar Tests. *Proceedings of the COLING/ACL 2006 Interactive Presentation Sessions*. 1-4.
- Larsen-Freeman, D. (1997). Grammar and its teaching: Challenging the myths (ERIC Digest). Washington, DC: ERIC Clearinghouse on languages and Linguistics, *Center for Applied Linguistics*.
- The Editors of Encyclopaedia Britannica. (2011). Academic Degree.
From <https://www.britannica.com/topic/degree-education>
- Marie Webb, Evelyn Doman. (2019). Impacts of flipped classrooms on learner attitudes towards technology-enhanced language learning. From <https://doi.org/10.1080/09588221.2018.1557692>
- Greeni Maheshwari. (2021). Factors affecting students' intentions to undertake online learning: An Empirical Study in Vietnam. From 10.1007/s10639-021-10465-8
- Eoghan Quigley. (2019). ADDIE: 5 Steps to Effective Training.
From <https://www.learnupon.com/blog/addie-5-steps/>
- Irani, T. (2005). Communication potential, information richness and attitude: A study of computer mediated communication in the ALN Classroom. Sloan-C.
- Moore, M. G.(1989). Editorial: Three types of interaction. *American Journal of Distance Education*. 3(2), 1-7.
- Simpson, C.,& Du,Y.(2004). Effects of learning styles and class participation on students' enjoyment level in distributed learning environments. *Journal of Education for Library and Information Science*. 45(2), 123-136.
- Vonderwell, S. (2003). An examination of asynchronous communication experiences and perspectives of students in an online course; A case study. *The Internet and Higher Education*. 6(1), 77-90.
- Wood, R. H. Jr. (2002). How much communication is enough in online courses? Exploring the relationship between frequency of instructor-initiated personal email and learners' perceptions of and participation in online learning. *International Journal of Instructional Media*. 29(4), 377.
- The Editors of Encyclopaedia Britannica.(2002). Five teaching steps.
From <https://www.britannica.com/topic/Herbartianism>