

THE EFFECT OF INTRALINGUAL SUBTITLED VIDEO IN LEARNING THE MEANING OF TARGETED ENGLISH VOCABULARIES IN MALAYSIAN ESL SECONDARY SCHOOL CONTEXT

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Abstract

Audiovisual materials with captions or subtitles have long been regarded as a great pedagogical tool to enhance language learning such as listening comprehension, oral skills, grammar, and vocabulary. Due to their notable potentials in assisting language learners, the current research thus takes interest on investigating the extent of intralingual subtitled videos in helping ESL students to learn the meaning of the targeted English vocabularies. Underpinned by Paivio's dual-coding theory and Krashen's Input Hypothesis, intralingual subtitled videos become a comprehensive input with multiple modalities that stimulate viewers' information processing system to facilitate better memory retention and recognition of meanings and form of vocabularies. This research employs pre-test and post-test vocabulary quizzes, open-ended questionnaires, and email questionnaires to elicit the data required from 30 ESL Form 2 students of a secondary school in Melaka, Malaysia. Findings indicate that the intralingual subtitled video used does help participants to learn the meaning of the targeted English vocabularies due to the availability of pictorial, textual and audio cues to help participants establish words' meanings. This study offers ESL learners and educators a reference in utilising a multimedia tool that suits learners' needs and interest besides initiating a potential solution to vocabulary-learning issues diagnosed in classrooms.

Keywords: intralingual subtitled video, targeted English vocabularies, ESL learners, word meaning, word spelling

Introduction

Subtitles originally existed in the form of same-language texts (intralingual) typically displayed at the bottom of the screen to accommodate viewers with hearing impairment in understanding the content of television programmes (Neuman & Koskinen, 1992; Swanepoel et al., 2019). Today however, millions of people in the present day use subtitles regularly and mostly for reasons other than hearing difficulties. Adult viewers for instance often regard subtitles as helpful to learn or sustain their knowledge in a particular foreign language (Danan, 2004; Pujadas & Muñoz, 2019; Peters, 2019).

Empirical evidence has shown that the studies of implementing subtitled materials in ESL/EFL classrooms had dated back since the early 1980s (McLoughlin, 2009). Price (1983) conducted a study involving ESL learners and they found that intralingual captions notably improved linguistic and cultural comprehension (McLoughlin, 2018). Since then, numerous studies have been conducted to further discover the potentials of subtitled materials in providing generous

support for language learning. Such interest probably lies in the fact that the multi-sensory process involving interaction among audio, video and print mechanisms promoted by subtitled materials becomes a great multimedia tool to enhance the learning of language skills (Gorjian, 2014).

With the perpetual advancement of technology and multimedia over these years, it has become apparent that teachers ought to exploit these sources for creating instructional materials in language classrooms, which patently goes in line with the current 'technology-equipped' generation or better known as digital natives. In a language classroom, subtitled videos can be a unique approach in vocabulary learning as it combines words and images which are more probable to stimulate viewers' processing system of oral and visual messages rather than the words or pictures alone (Paivio, 2014). "When pictures are added to the meaning, the number of signals connected with the message increases, thus promoting better comprehension of the message" (Harji et al., 2010, p. 2).

Using Intralingual Subtitled Video for Vocabulary Learning

The dual-coding theory by Paivio (1971) postulated that when information is presented in verbal stimulus such as spoken and written words in addition to non-verbal stimulus like images, actions and sensation (Clark & Pavio, 1991; Liu et al, 2020), it increases the chance of a person remembering an item compared to if the stimulus is only processed one way because the cues from both pictorial and textual help learners make associations between pictures and words to establish word recognition (Soleimani & Gowhary, 2014). A study by Tsai (2009) witnessed a preference for intralingual subtitles as it improved vocabulary learning because of the presence of word spelling which provided cues for pronunciation. Participants in Yu's research (2012) provided an affirmation to this statement by reporting that the presence of intralingual subtitles in the American television drama being watched enabled them to memorise the spelling of words as they could see the words, hear them and watch the video simultaneously. In a 2010's research by Harji et al., learners made a significant improvement in the level of vocabulary acquisition because the multi-sensory process involving interaction among audio, video and print mechanisms enhanced the learners' learning, improved their understanding of content and developed their vocabulary.

Krashen's theory of Input Hypothesis (1991) propounded that learning is made possible when the input material is slightly more difficult than the learners' current level of knowledge (Kustati & Prisillia, 2018). Adding subtitles to a video thus increases the chances of learners comprehending the content of the video (Raine, 2012) and add opportunity for learners to obtain new knowledge effectively from the video (Harji et al., 2010), thus making it a comprehensible input material which leads to foreign language acquisition. By looking at the subtitled words in meaningful, stimulating and comprehensive circumstances, the input material may improve the comprehension of the content and increase learners' vocabulary knowledge (Gorjian, 2014).

Results of many other past researches sustain the aspect that the use of intralingual video indeed does help learners in vocabulary learning. Utomo (2020) found that 83% of her participants excelled in the vocabulary tests after being exposed to an intralingual subtitled video, thus indicating the effectiveness of intralingual subtitles in improving the students' vocabulary. In 2009, Tsai's study concerned the inquiry of the reaction and learning process of lower-intermediate Chinese EFL learners while they were exposed to intralingual subtitled videos. The results showed that the videos helped learners to pick up certain words they had not encountered before or in prior had encountered orally but not in written form. In a comparative study, Matielo et al. (2013) investigated the effects of interlingual and intralingual subtitles on

English vocabulary learning by Brazilian EFL learners and the post-test results showed that there were more immediate gains in the group with intralingual subtitle compared to intralingual subtitle. This finding is parallel with the finding from Baranowska (2020) in which English learners from Polish students were assessed on their vocabulary knowledge after being introduced with intralingual and interlingual subtitles. The study concluded that for vocabulary learning, intralingual subtitle is more suitable compared to the latter.

The studies of subtitled videos in vocabulary learning still holds its prominence and relevance in the world of research as demonstrated in studies by Utomo (2020) and Baranowska (2020). However, there have been very little empirical studies that cover this particular area of interest in the local context. In fact, the few local researchers who have conducted studies on the effectiveness of subtitled videos in language learning have been focusing only on tertiary-level respondents. Therefore, this current paper attempts to fill in this gap to conduct a further discovery on this subject in the context of Malaysian secondary school students, particularly to probe the effectiveness of intralingual subtitled video in helping them to learn the meaning of the targeted English vocabularies. Another gap that the current research attempts to fill in is that despite the use of multimedia resources being outlined as an educational emphasis, learning outcome and suggested classroom activities in the Malaysian English curriculum specification for secondary schoolers as well as the many efforts taken by the government to improve the level of English proficiency among school students in Malaysia through its policies and initiatives, any mention of utilising captioned video is not present. This shows that the potential of captioned material like intralingual subtitled video is yet to be recognised even though multimedia employment in the classroom has long been emphasised and implemented.

Research Methodology

This is a classroom-based research study in which participants received an English lesson through the course of two days; each day consists of a two-period class with a total duration of 80 minutes. This research implements a descriptive mixed-methods approach, involving both qualitative and quantitative approaches, with more weight given to quantitative approach in investigating the extent of intralingual subtitled video in helping students to learn the meaning of the targeted English vocabularies.

This research involved of 30 students of a Form 2 class from a secondary school in Melaka. All students were intermediate-level English language learners who were native speakers of Malay language, with English language being their second language. The pre-test and post-test vocabulary quizzes used in this study were adapted from Raine's vocabulary quiz (2012) which was modified from Wesche and Paribakht's 1993 Vocabulary Knowledge Scale (VKS). The quiz tested participants on 6 targeted vocabularies (2 nouns, 2 verbs and 2 adjectives) taken from the intralingual subtitled video titled 'The Lego Story'. These words were chosen as the targeted vocabularies to be learned because they provided patent contextual clues such as pictorial, textual and verbal cues which could help participants to guess the meanings when accompanied by visual display. The vocabulary quiz consists of 5 levels of responses that the participants could choose from in order to self-report their familiarity and current degree of knowledge regarding the targeted words. Both pre-test and post-test vocabulary quizzes were analysed following a scoring rubric and participants' performance was measured according to their value of vocabulary gain. Participants' responses were assigned a score based on the level of response selected for each targeted word.

Table 1 Vocabulary Quiz Scoring Rubric

Level	Response	Score
Level 1	I don't remember having seen this word before.	1
Level 2	I have seen this word before, but I do not know what it means.	2
Level 3	I have seen this word before and I know its meaning a little.	3
Level 4	I have seen this word before, and I know what it means.	4
Level 5	I have seen this word before, I know what it means, and I can use it in a sentence.	5

In the case of participants selecting certain levels as their responses but the meaning provided by them in Malay is incorrect, their response is downgraded by a level from the initial one. For example, if a participant selects Level 3 'I have seen this word before and I know its meaning a little', but he provides an unfitting meaning for the word, he would be downgraded to Level 2 and obtain a score of 2 instead of 3. The total scores for each participant's pre-test and post-test are then accumulated respectively and the value of vocabulary knowledge gain is then determined by calculating the value of difference between the scores. If the value of difference is that of positive numbers, then a participant's vocabulary gain would be considered positive. Contrastively, his/her vocabulary gain would be determined as negative if the value of difference is that of negative numbers.

Table 2 Example of Pre-test and Post-test Vocabulary Quiz Result

Participant	Pre-test Score	Post-test Score	Gain
A	12	15	+3
B	9	8	-1

An open-ended questionnaire was distributed to the participants at the very end of the classroom lesson. The questionnaire contains a 4-level Likert scale as the provided choices for participants' responses to the question 'do you find intralingual subtitled video helpful for you to learn the meaning of the targeted English vocabularies?'. Data from the open-ended questionnaire were analysed quantitatively using frequency (percentage) presented in tables and pie charts. An email questionnaire was also circulated to the participants in which they were asked to provide the justification to the responses selected in the previous open-ended questionnaire. The raw data from the email questionnaires were categorised following the coding and theming method. The categorised data were then analysed in relation to the quantitative data gathered from the vocabulary quizzes, allowing constant comparisons and contrast of data between both sources.

Result and Discussion

The following findings and data analysis are based on a pre-test and a post-test vocabulary quiz, open-ended questionnaires and email questionnaires. All 30 participants participated in the quizzes and the first part of the open-ended questionnaire. For the email questionnaire, 18 participants responded to it while the remaining 12 participants chose to leave the questionnaire blank. Data were analysed in an attempt to determine the extent of intralingual subtitled video in helping students to learn the meaning of the targeted English vocabularies.

Pre-test & Post-test Vocabulary Quiz

Positive Gain	27
No Gain	2
Negative Gain	1
Total	30

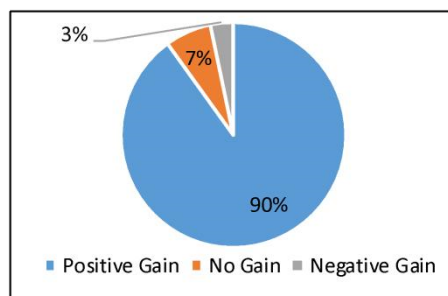


Figure 1 Overall value of gain from vocabulary quiz

Table 3 Value of Gain from Vocabulary Quiz in Rating Scales

Gain	Rating Scale	Number of Participant	
Positive Gain (+)	Low	1 to 3	13
	Moderate	4 to 6	11
	High	7 to 9	3
No Gain	0		2
Negative Gain (-)	Low	-1 to -3	1
	Moderate	-4 to -6	0
	High	-7 to -9	0

Figure 1 and Table 3 respectively display the value of gain from the vocabulary quiz in overall as well as in accordance to rating scales. Almost all participants (90%) managed to achieve positive gain with 13 of them obtaining a low value of positive gain in this category. Only 3 participants achieved a high value of positive gain while the rest 11 participants were moderate. Two participants (7%) made no gain in the vocabulary quiz while only one participant (3%) obtained a low value of negative gain.

Open-ended & Email Questionnaires

Very	14
Somewhat	12
Not Very	4
Not at All	0
Total	30

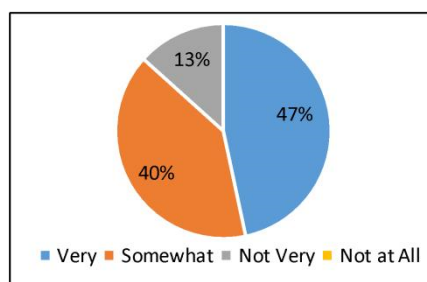


Figure 2 Do you find intralingual subtitled video helpful for you to learn the meaning of the targeted English vocabularies?

Figure 2 displays the findings from Item 3 of the open-ended questionnaire; ‘Do you find intralingual subtitled video helpful for you to learn the meaning of the targeted English vocabularies?’. The data indicate that almost half of the participants (47%) regarded intralingual subtitled video as very helpful in learning the meaning of the targeted English vocabularies. Only a small number of participants (13%) regarded intralingual subtitled video

as not being very helpful while the remaining participants (40%) shared a rather similar view with the majority by affirming that intralingual subtitled video was somewhat helpful.

The email questionnaire prompted participants to justify why they chose a specific response to the related question. The combination of images and textual cues in the intralingual subtitled video is identified as the single theme that provides reasoning as to why most participants regard intralingual subtitled video as very or somewhat helpful in learning the meaning of the targeted vocabularies. A participant reported that she managed to learn the meaning of new words because the character's doing suited the word meanings. Despite this being a salient point, no other response from participants consisting of an equal degree of pertinence to the pertaining matter was observed.

On another aspect, there are two themes that are able to be singled out from the data in order to justify why a few participants felt that intralingual subtitled video was not very helpful in learning the meaning of the targeted English vocabularies. Firstly, the participants felt that the pace of the intralingual subtitle video is rather too fast for them. The second theme that emerged from the data is the inability to focus on both images and text simultaneously. A participant reported that she was so into watching the characters in the video that she did not pay attention to the subtitles.

Despite a great number of participants agreeing to the statement, only one of them managed to provide justification for her own response; it was due to the character's doing which suited the word meanings that enabled her to guess the meaning. The findings do not detect any other justification from other participants that is pertinent to this matter. It was observed that such a condition is due the participants not being able to comprehend the questions in the emailed questionnaire as the responses which were given by them were mostly not related to what was being asked.

With regard to the response that characters' actions in the video provided explanation to the meaning of the words displayed in the subtitle, it gives evidence to the notion that combined images and textual cues present in the intralingual subtitled video helps establishing the meaning of a particular word, just as asserted by the dual-coding theory. Since the targeted words were presented in non-verbal stimulus (video images or in this case 'the character's doing') in addition to verbal stimulus (intralingual subtitle and audio), they activated the two cognitive subsystems more successfully than solely words or pictures (Paivio, 2014; Heena et al., 2021) and this increases the chance of a person remembering an item compared to if the stimulus was only processed one way. In other words, the cues from both pictorial and textual can help learners make associations between pictures and words to establish word recognition. Only a small number of participants (n=4, 13%) regarded the intralingual subtitled video as not being very helpful in learning English vocabularies, mainly due to the pace of the intralingual subtitle video being too fast for them and they were unable to focus on both images and text simultaneously. The assumption of reading subtitles might be distracting viewers from hearing the audio or concentrating on the video has long been discussed, but a lot of time, it was refuted through many studies. For instance, results from Koolstra & Beentjes (1997) indicate that reading the subtitles did not distract children from hearing the English words because word recognition of participants with subtitled condition was superior than those in non-subtitled condition and that they had no problem with switching between reading subtitles and listening to the English words spoken in the soundtrack. While it may be true that reading subtitles, listening to audio and concentrating on the video all at the same time could be too demanding for these participants in this study, however, it is believed that this is due to their English competency (Napikul et al., 2018). d'Ydewalle & Van de Poel's (1999) study had proven that compared to older groups of viewers, young children benefit less from watching

subtitled video due to the task being too demanding for them because of their lower English competency and less ability to process information from different channels.

Findings from the vocabulary quizzes and questionnaires indicate that a high number of participants obtained positive vocabulary gain and majority of them affirmed that intralingual subtitled video helped them to learn the meaning of English vocabularies and this was due to the availability of both pictorial and textual cues to help participants to associate cues with meaning of words. Thus, it can be concluded that to some extent, intralingual subtitled video do help students to learn the meaning of the targeted English vocabularies.

Conclusion

The current study investigates the extent of intralingual subtitled video in learning the meaning of the targeted English vocabularies among the ESL Form 2 students of a secondary school in Melaka. Findings from the vocabulary quiz, open-ended questionnaire and email questionnaire reported that intralingual subtitled video used in this study does help participants to learn the meaning of the targeted English vocabularies due to the availability of both pictorial and textual cues to help participants to associate cues with meaning of words.

Looking at the findings, it can be concluded that, to some extent, intralingual subtitled video is effective in enhancing the learning of English vocabulary. Through this research, the potentials of intralingual subtitled video are successfully uncovered in many aspects. Thus, teachers are ought to exploit intralingual subtitled video as it is a powerful pedagogical tool that provides aids in curbing many emerging learning problems due to the lack of vocabulary knowledge among language learners. Going hand in hand with what has been emphasised by the national curriculum, it is thus hopeful that language teachers in Malaysia can become more and more involved in utilising multimedia technology in language classrooms, particularly intralingual subtitled video, as its contributions in the field of language learning cannot be denied anymore and it deserves an eminent attention.

The result of this study would hopefully inspire language educators to incorporate this technique of teaching vocabulary in the classroom and fully exploit its potential as a possible practice that suits the needs and interest of learners at best. Besides that, it also provides opportunities for ESL digital natives to approach their studying as a volitional act that reflects their individual goals and values. By utilising intralingual subtitled video in vocabulary learning, learners would become more well-sourced, self-directed (andragogical) and selfdetermined (heutagogical) which are all necessary in making them ready to learn in the webconnected world. In addition, the current study also proposes a suitable pedagogical tool that aligns with Industrial Revolution (IR) 4.0 notion which focuses on transforming the future of education using advanced technology and automation. Intralingual subtitled videos can be a form of innovative digital tool which facilitate future education models by focusing on mobile, comprehensive, and virtual education and skills development.

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