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Channeling Multiliteracies in Digital Era: A Case Study of EFL Student-Made Video Project in Vocational High School

Nadzifa Nur Fadila
Universitas Pendidikan Indonesia, Indonesia
nadzifa@upi.edu

Sri Setyarini
Universitas Pendidikan Indonesia, Indonesia
setyarini.english@upi.edu

Gin Gin Gustine
Universitas Pendidikan Indonesia, Indonesia
gustine@upi.edu

Abstract

The rapid growth of technology and the new demand of workforce in 21st century have intrigued the research to explore multiliteracies in EFL vocational high school through student-made video project. The skills to process information from mass media and operate in a digitized field are deemed to be necessary for vocational high school students. Student-made video project can be considered as an alternative in training students to enhance their multiliteracies skill, which will be explored in this research. Through a case study design, the integration process and salient modes of multiliteracies are captured. Involving a teacher and students of a vocational high school, the findings revealed that the student-made video project are conducted through four main stages, namely experiencing, conceptualizing, analyzing, and applying. The modes of multiliteracies appeared more frequent are visual representation, audio representation, and oral language in the form of video visual, audio of the video, script writing, and classroom discussion.
Keywords: multiliteracies, video project, vocational high school, EFL

1. INTRODUCTION

Technology advancement in the late 20th century has instigated a new term in literacy, the multiliteracies pedagogy. The term was introduced by a group of researchers known as the New London Group in a conference conducted in New London, New Hampshire, in 1996 (Olthouse, 2013). Multiliteracies strive to shift the traditional view of literacy, which is bound to written and printed texts, to a wider variety of modes in response to digital mass media (Leander & Boldt, 2012; Olthouse, 2013). Through the various modes of multiliteracies, the New London Group researchers suggest that learners can be exposed to more opportunities of using multi communication mode and digital media in the learning process (Olthouse, 2013; Kohnen & Adams, 2019).

The emergence of multiliteracies in the education field exposes students to learning media alternatives that may enhance meaning-making and communication skills. There are seven modes of multiliteracies generated by Cope and Kalantzis (2000), namely; written, oral, visual, audio, tactile, gestural, and spatial communication. By incorporating the seven modes of multiliteracies with each unique capability in transmitting the same message, students' literacy diversity may be facilitated and fostered to give them more opportunities to succeed in the learning process (Cope & Kalantzis, 2009a; Pillay, 2010). With the variety of modes delivered by the multiliteracies, higher-level education incorporates the approach into their learning curriculum to prepare their learners to operate successfully in the digital era. The curriculum developers believe that multiliteracies may not only be limited to develop students' linguistic skills, but also to foster the multimodal communication and production which will help them to adjust and operate in the 21st century (Carpenter & Lee, 2016; Alexander, DePalma, & Ringer, 2016).

The integration of the multiliteracies approach in EFL vocational high school may be necessary as the students are educated and trained to work after graduating from the respective education level. The vocational high school students choose their preferred program to gain specific knowledge and skills at the beginning of their study. In order to be ready for a global, complex, and digital workforce, the students should be prepared to have the 21st-century competencies which can be facilitated through the multiliteracies approach (Ali, Harun, Massari, Puteh-Behak, Darmi, Mahir, Selamat, & Hamid, 2017; Daffurn, 2019). Moreover, there has been not much research on multiliteracies in secondary school, especially the vocational high school, and mostly explored at the tertiary level (Bancroft, 2016; Carpenter & Lee, 2016; Alexander et al., 2016; Khadka, 2018). Therefore, to equip vocational high school students with linguistic and 21st-century competence, the reinforcement of multiliteracies may be necessary.

In the classroom application, student-made video project may provide the needed facility to establish multiliteracies to EFL vocational high school learning. The video project promotes the attendance of multi-types of communication, such as written, visual, audio, and gestural representations, that expose students to various literacy types suitable for the digital learning era (Jewitt, 2008; Mills, 2010; Yeh, 2018). Through the project, the students' differences in learning styles and literacy may also be trained and accommodated so that the learning process can be more successful (Pillay, 2010; Aisami, 2015). Further, the student-

made video project provides opportunities for the students to apply the linguistic and language features they have learned contextually as they were assigned to create a video with topics that are related to their study program and perform the language features following the topic (Göktürk, 2016; Marzuki & Nurpahmi, 2019; Abdulrahman & Basalama, 2019). By allowing them to use the language they learn in a correct context with familiar topics, they may gain a meaningful learning experience (Zhang, Hwang, Tseng, & Chen, 2018). To portray multiliteracies reinforcement in the audio-visual era for the EFL vocational high school, the research will answer the following research questions: (1) *How do multiliteracies promote through student-made video project in EFL vocational high school?* (2) *What mode of multiliteracies is most salient in a student-made video project in EFL vocational high school?*

2. LITERATURE REVIEW

Multiliteracies emergence may have been profoundly influenced by the need for transformation in the new digitalized community. The multiliteracies concept became a buzzword as the New London Group (1996, cited in Puteh-Behak & Ismail, 2018) promotes it to gain knowledge and enhance skills to actively engage in the era of globalized economics, technology, information, and social networks. Subsequently, the multiliteracies concept also defines as the ability to portray a social context of a synergized multiple modes of media and communication within the cultural context (New London Group, 1996, cited in Buckley-Walker, Tognolini, Lockyer, Brown, & Caputi, 2017). Multiliteracies are perceived to influence someone to understand consciously through critical literacy as the skills are believed to be essential in recognizing and linking cultural and linguistic elements of texts (Bull & Anstey, 2010, cited in Gardiner, Cumming-Potvin, & Hesterman, 2013).

The multiliteracies approach has also emerged in the field of language learning. The multiliteracies approach is learning processes through discovery processes as it emphasizes the "textual interpretation and transformation, the interdependence of language modalities, and interactions among language forms, social context, and communication" (Paesani, 2016, p. 270). Moreover, the multiliteracies approach expands students' skills beyond replicating and engages students in a progressive reconstruction and reapplication of forms and structures to gain understanding and process meaning (Cope & Kalantzis, 2009b). Some scholars also believe that technology plays an essential role as multiliteracies respond to the expanding global era. The 21st-century competencies require the students to comprehend and produce meaning from multiple forms of communication available in their surroundings, such as pictures, videos, telephones, electronic tables, videos, and smartphones (Mills, 2011; Gardiner et al., 2013; Buckley-Walker et al., 2017). Therefore, multiliteracies and technology are associated with each other as both can nurture and be useful for the operation.

2.1 Knowledge Processes

The multiliteracies framework consists of four dimensions: situated practice, overt instruction, critical framing, and transferred practice, as proposed by the New London Group (1996). The stages promote a series of thinking sequence which may expose the students to multiliteracies. As the years go by, the framework of multiliteracies is developed by Kalantzis and Cope (2010, cited in Cope & Kalantzis, 2015) for classroom guidance

application in a framework named 'Knowledge Processes'. The stages are similar to the significant framework multiliteracies, in which transferring situated practice to experiencing, overt instruction to conceptualizing, critical framing to analyzing, and transferred practice to applying with two principles of each stage. The following table depicts how the multiliteracies framework proposed by the New London group (1996) is 'transferred' to Knowledge Processes by Kalantzis and Cope (2010) with further details by Healey (2016).

Table: 1 Knowledge Processing Framework (Kalantzis & Cope, 2010; Cope & Kalantzis, 2015; Healey 2016)

Stages	Dimensions
Experiencing	*the known* – reviewing knowledge and experience of the students
	the new – experiencing unfamiliar information of the topic
Conceptualizing	*by naming* – categorizing, classifying, and defining existing terms, sequence, etc.
	with theory – generalizing and connecting the topic into theories
Analyzing	*functionally* – reasoning, inferring, concluding, and establishing functional relations (connections, cause and effect, logical analysis, etc.)
	critically – evaluating one's perspectives and others and comparing each other to enrich critical lenses
Applying	*appropriately* – applying knowledge and ideas into real world context as well as validating them
	creatively – innovating something new creatively based on interests, experiences, and aspirations

2.2 Modes of Multiliteracies

Multiliteracies aim to provide a variety of modes and diminish the limitation of communication modes to traditional literacy. The use of multiple modes in understanding the meaning and making meaning is encouraged by technology development in this digital era. As a response to the development and paradigm shift, there are seven modes proposed by the New London group (1996) and Cope and Kalantzis (2000), which are beyond traditional literacy, such as written and printed texts. Multiliteracies modes are written language, oral language, visual representation, audio representation, tactile representation, gestural representation, and spatial representation (Cope & Kalantzis, 2009a). Each mode possesses different capabilities in transmitting meaning with unique transfer techniques to complete the job (Cope & Kalantzis, 2009a). The variety of modes of multiliteracies may be reinforced in the learning design to create multiliteracies-oriented learning. Each mode consists of two different representational processes representing meaning to oneself and representing meaning to others. The details of each mode of multiliteracies are available in the following table, along with the examples.

Table: 2 Modes of multiliteracies (Cope & Kalantzis; 2000; 2009a)

Modes	Description	
	Representing Meaning to Oneself	Representing Meaning to Others
Written Language	Reading Handwriting, printed pages, screen	Writing
Oral Language	Listening	Live or recorded speech; listening
Visual Representation	View, vista, scene, perspective	Still or moving image, sculpture, craft
Audio Representation	Hearing, listening	Music, ambient sounds, noises, alerts

Tactile Representation	Touch, smell, taste Kinesthesia, physical contact, skin sensations (heat/cold, texture, pressure), grasps, manipulable objects, artefacts, cooking and eating aromas.
Gestural Representation	Physical act of signing Hands and arms movement, facial expressions, eye movements and gaze, demeanors of the body, gait, clothing and fashion, hairstyle, dance, action sequences (Scollon, 2001, cited in Cope & Kalantzis, 2009a, p. 362)
Spatial Representation	Proximity, spacing, layout, interpersonal distance, territoriality, architecture/building, streetscape, cityscape, and landscape.

Several past kinds of research have been conducted to explore multiliteracies and technology for learning and education. The use of technology in the learning process includes digital storytelling, online writing media, and video making projects to reinforce multiliteracies (Hung & Huang, 2015; Akdeniz, 2017; Istiqomah, 2017; West, 2019). The learning activities are suitable for multiliteracy-oriented learning as they combine technology and multiple modes of communication to break the limitation of traditional literacies. By applying technology and multiliteracies-based activities, the students can also gain digital skills, raise social awareness (e.g., cross-cultural understanding, digital empathy), and practice intrapersonal skills (Istiqomah, 2017; West, 2019; Chen, 2018). Moreover, in the context of EFL learning, the use of technologies, specifically online writing media, and video projects contributed to students' enhancement in language skills such as speaking and writing, followed with the other seven modes of multiliteracies (Hung & Huang, 2015; Chen, 2018; West, 2019). However, most of the research listed above was conducted at the tertiary level. It is necessary to explore the same vocational high school level since the students are also educated and prepared for work. Thus, the students are expected to have the 21st-century workforce's competencies after they graduate, which may be obtained through student-made video projects.

3. RESEARCH METHODS

3.1 Research Design and Participants

The research was conducted in the form of a case study in a qualitative manner. One vocational high school English teacher and four students under the Mechatronics program were involved in the research. The teacher has regularly reinforced video projects in the EFL learning process, and the selected student participants have experienced a student-made video project under the teacher's supervision. They were assigned to create procedural videos with topics that were related to their vocational high school program as their English subject final task. Each student had completed the ±4-minute video assignment with their preferred topic. The video project was conducted within four meetings, including material coverage, consultation, video making, and video submission. The students were required to submit the videos they have made by the end of the third meeting. In the last meeting, the students watched their peer's videos before doing classroom discussions. They gave feedback, evaluate their language use, as well as the learning process as a whole.

3.2 Instruments

The data collection process was conducted through in-depth teacher interviews, students interview, and learning artefacts. The in-depth interview session with the teacher covered the learning process sequence and the video project assigned according to the lesson plan. Subsequently, seven students were interviewed regarding their experience in creating videos for the final English task from their perspective. They elaborated on their attitude and feelings towards the project. The interview guidelines are listed in Table 3. To complete the data collection process, student-made video samples are gathered to enrich the data before the analysis process.

Table: 3 Interview Guidelines

Topic	Indicator
Introduction	Details of the lesson
Experiencing	Introductory phase of the learning: exploring the new and the unknown
	Media/tools/activity used
Conceptualizing	Text elements discussion: classifying and theorizing
	Media/tools/activity used
Analyzing	Text elements discussion and practice: reasoning and evaluating
	Media/tools/activity used
Applying	Final task of the topic: reconstructing and innovating
	Media/tools/activity used

The learning artefacts are the third data that are gathered from the field. The learning artefacts are student-made videos, which are the final product of the project. Four video samples from four different students with length ranging from one to four minutes are collected from the teacher. Then, each video is transcribed and analyzed to identify the seven modes of multiliteracies promotion.

3.4 Data Analysis

The data analysis process involved thematic analysis and video coding. The data gathered from interview sessions with the teacher and the students were analyzed using thematic analysis according to the stages of Knowledge Processes and modes of multiliteracies. A coding scheme was constructed based on the stages and dimensions of Knowledge Processes and the modes of multiliteracies to generate the classroom application of student-made video project as an English subject final task and the most salient modes used. The interview results were organized using a coding note that generated the lesson's details, code for each stage, and modes. The data were analyzed using a rubric developed from the Knowledge Processes and modes of multiliteracies framework (Appendix A). The gathered video samples were also analyzed to capture the promoted modes of multiliteracies in the students' videos to enrich the data. The coding process generated screenshots, modes, and descriptions of the sample organized in the form of tables. Through the video coding, the types and intensities of each mode representation can be generated. The sample of the video analysis process is available in Appendix B. After the stages of multiliteracies promotion

through student-made video project in EFL vocational high school and the most salient mode utilized in the learning process generated, the conclusion can be drawn.

4. FINDINGS AND DISCUSSION

4.1 Knowledge Processes in Student-Made Video Project

The stages of Knowledge Processes portrayed from the in-depth interviews with the teacher and the students generate eight classroom activities according to the framework's dimensions. In the experiencing stage, the students are exposed to the known and the new through classroom discussions, which explore their background knowledge to the topic and other possible related topics. During the conceptualizing stage, the students practice naming and theorizing through brainstorming the text type and text features related to the topic. Through the analyzing stage, the students reason and evaluate the mistakes they make through identification and correction. In the final applying stage, the students are assigned to reconstruct text revision and make video preparation and followed with innovating text by creating it into a video. The following table displays the organization of classroom application of Knowledge Processes in the form of a student-made video project and will be followed with further elaboration.

Table: 4 Findings on multiliteracies promotion through video group project

Stages	*Dimension*	*Application*
Experiencing	The known	Related topics exploration
	The new	Possible related topics exploration
Conceptualizing	Name	Text features identification
	Theory	Text type identification
Analyzing	Reason	Mistakes identification and reason
	Evaluation	Mistakes correction and reason
Applying	Re-construction	Text (script) revision and video preparation
	Innovation	Text (script) to video transfer

Experiencing

At the beginning of the learning process, the experiencing stage was reinforced to introduce the students' main learning topic. It was necessary to explore things that the students already know and relate them to the selected topic to create familiarity. The experiencing stage was applied in the form of a classroom discussion forum. The teacher introduced the main objective and topic of the learning, followed by follow-up questions to guide students in retracing their background knowledge and experiences related to the learning topic. Further explanation is elaborated in the following excerpt.

> *"I began by telling the students we are going to make a procedural text... I asked the students, "When you study Mechatronics, what do you learn?". I asked them that. "What practicums have you done?". Then, some students, for example, answered, "Operating a lathe machine, Ma'am," or something like, "How to make a robot", or "How to install house electricity". Then, I asked them to juggle their memories about the sequence of doing the topic they select."* (SS_T).

The elaboration is also in a match with the students' answers regarding the classroom discussion. The teacher assigned the students to create procedural videos beforehand and discussed the possible related topics. They were given a chance to explore ideas and topics related to the learning topics and the freedom to choose the procedural topic according to their interest. They also discussed the topics with their peers to avoid selecting the same topic. The following excerpt depicts the student's answers regarding their choosing the topic for their video project.

> *"The teacher assigned us to make a video related to our study program. It was up to us as long as it is related. My study program was Mechatronics, so I chose something that was related. I spent a lot of my time in the school's workshop, so I chose a topic that I could find around me, in which how to use a 3D printer… We did not discuss the topic with our teacher, but we made sure that we did not make videos with our friends' same topic."* (S1_12).

The students successfully brainstormed 'the known' aspect at the experiencing stage and explored 'the new' aspect of the topic according to the Knowledge Processes' principles. The students were already aware of the topic of the learning topic and made procedural videos related to their study program. They were also aware of topics that are allowed and off-limits. Subsequently, the students explored different but familiar topics to avoid topic similarities with their peers. Thus, they searched for ideas that were still related to their study program, but unique and feasible for them to work on. It required them to brainstorm and find more new ideas to figure out where to start writing their scripts.

Conceptualizing

The learning process proceeded to the conceptualizing stage, which was applied through text type and feature identification. In this stage, the students were set to name and theorize the learning topic through independent learning. They were assigned to identify the type of text suitable for their videos and the text's organization, such as text's social function, generic structure, and language structure. The students were given the freedom to conduct their research about the text, specifically procedural text, through any media, such as textbooks, websites, and other sources. The elaboration of the teacher is available in the following excerpt.

> *"I gave the students a chance to create their text outline. Firstly, they decided on the topic; then they write their outline for me to examine… Thus, I did not tell them specifically about the text, like "you should write the sentence this way", or "the structure should be arranged like this", no… They figured it out by themselves, usually searching through the Internet or books in the library. The materials could be in the form of text, videos, or audios. Since they were assigned to write a text, they tend to find examples in written text."* (SS_T)

The students also expressed a similar view in the conceptualizing stage. They independently searched materials and examples of the text before constructing the video scripts. Student 1 elaborated that he/she explored the generic structures and examples of the text through the Internet. On the other hand, Student 2 reflected on his/her experience

writing a procedural text he/she gained in previous grades and non-academic experience. The elaborations are available in the following excerpts.

> *"Mostly, I explored the materials by myself since the teacher assigned me to search the materials by myself independently… I looked for the script examples on the Internet… Just surfing and exploring the Internet."* (S1_12)

> *"I got inspired by… the time I joined some events. From the competition, I gained knowledge about language features and generic structures… Besides, it was about the procedural text. The video was about the procedural text. I have learned it since I was in the 8th grade of junior high school, though it was in Indonesian."* (S2_12)

Through the conceptualizing stage, the students were able to name and theorize the topic of the learning. The students could identify how procedural texts were different from other types of text through independently search the examples of the text through the Internet. Further, the students could also theorize the social function, generic structure, and language features through individual research and past experiences in constructing procedural texts.

Analyzing

The third stage is the analyzing stage, in which the students analyze their text to reason and evaluate the mistakes they make. In this stage, the students are assigned to construct their video script draft after independently researching the text identification and structures. After finishing their draft, the students were given a chance to consult their script with the teacher and their peers. The consultation session was expected to identify the organizational and structural errors through a private consultation with the teacher, classroom discussion, and peer discussion. The activities are inferred in the following excerpt quoted from the teacher interview.

> *"I asked the students to come to the teacher's desk one by one, while the others discussed their text with their peers. That was the system… Yes, we discussed the text together in the teacher's desk. They brought their chair by themselves. Then, we talked about the mistakes they made. We also discussed which part should be added or reduced. We corrected it together."* (SS_T)

However, some of the student respondents asserted that they did not get the chance to consult their script draft due to time limitations. Thus, they sorted to personal methods, such as doing peer discussion and relying on the Internet to revise their work. Most of their concerns were vocabulary selection, grammar, and pronunciation. A respondent stated that he/she asked some friends who he/she thought had better performance in English. On the other hand, a respondent elaborated that he/she relied on personal research and translating machine through the Internet to identify the mistakes he/she made in the script draft. The elaborations can be found in the following excerpts.

> *"I just asked some friends since we did not have much time through online messengers. "Is it correct?" "Do I choose the correct vocabularies?". My friends corrected it for me. They told me about the pronunciation as well… Yes, I was worried*

> *about the vocabulary. I translated the sentences word by word. I was afraid of making mistakes, so I discussed it with my friends."* (S3_12)

> *"I did not get the chance to consult my full draft. I only talked to the teacher about my work briefly… I relied on an online grammar checking site for my mistakes. I also asked my friend who was better in English. I asked my friend his/her recommendations about my script and video."* (S2_12)

Through the analyzing stage, the students evaluated the mistake they made and the reason for the correction process. The students did not get much chance to consult with the teacher, but they could do an independent analysis of their text, promoting more student and learning-oriented activities. The students could find more sources to reason and evaluate the vocabularies and structural mistakes through peer discussion and online research instead of solely relying on the teacher.

Applying

The final stage of the project is the applying stage, in which assigned the students to reconstruct and innovate the structures they have learned throughout the learning process. The students revised their scripts and executed the video taking, video editing, and video submission processes in this particular stage. The students individually should complete and submit the video to the teacher through online messenger services or e-mail. By the end of the project, some student videos were played in front of the classroom to be discussed and evaluated together to reflect on the learning process they have gone through. The elaboration of the teacher is depicted in the following excerpt.

> *"I gave the process to the students so that they could develop their creativity… Some of them asked for some help from Multimedia students; some others search by themselves. I just received the final videos, and we discussed it together in the classroom."* (SS_T)

The students had performed independently in reconstructing the script they had written. Despite not having enough time to do personal consultation with the teacher, they initiated to ask for peer feedback and do online research to revise the script. On the other hand, the teacher revealed that some students also showed excellent performance in innovation. They created videos more than the expectation of the teacher. The following excerpt describes the teacher's elaboration regarding the students' performance in the videos they make.

> *"For example, they put some animation in their clips. They were creative in editing… They made an effort to look professional—the thought of the outfit, the background. Then… the students also thought of the suitability of the properties and the setting of where the video was taken. It was useful for the assessment."* (SS_T)

The project was concluded by playing some of the student videos in front of the classroom to evaluate classroom discussion. The teacher asserted that some students surprisingly were willing to give feedback for their friends' videos, though the teacher

needed to persuade them through extra points. It indeed helped the students to be more aware of the text identification and text structures. The explanation is available in the following excerpt.

> *"We played videos in front of the classroom. They tried to correct their friends' pronunciation after being promised extra points… Some of them corrected it by saying, "why do you say it like that?", and most of the time, they joked around."* (SS_T)

4.2 Multiliteracies Modes in Student-Made Video Project

Multiliteracies provide more learning alternatives for the audio-visual era's demand, which are suitable for EFL learning. The diversity can be identified through multiple modes that are used throughout the student-made video project. Through video coding and analysis, it is revealed that the seven modes of multiliteracies are evident in the project, though with different activities and intensities throughout the learning stages. The most promoted modes throughout the learning process were oral language and audio representation. Meanwhile, the least represented mode was tactile representation. The following table depicts the identified multiliteracies modes in the student-made videos from the four video samples.

Table 5. Modes of multiliteracies appearing in the student-made videos

Modes	*Types*	*Duration*
Oral	Students' speech Students' clip narration	80.2%
Visual	Visual aids (clips and running text)	100%
Written	Running texts (logo, students' name, section label, and concluding remark)	11.7%
Audio	Students' speech Students' clip narration Musical background (opening jingle, instrumental, and songs)	99.4%
Spatial	Frame background Running text layout Object proposition	89.2%
Gestural	Body language (eye contact, hands gesture, etc.) Outfit Demonstration	86.1%
Tactile	Hands-on demonstration	37.6%

All video samples length = 489"

Oral language is one of the most promoted modes of multiliteracies in the project. The form of activities that promoted oral languages were classroom discussion, peer discussion, and direct instruction instructions in the classroom. The mode was explicitly evident in the experiencing, analyzing, and applying stage. Subsequently, in the student-made videos, oral language was represented in students' direct speech and students' clip narration. The duration was 80.2% of the whole video samples. The following excerpts consist of a teacher's elaboration and an audio transcription as evidence on oral language promotion.

> *"I assigned the students to look for a topic and organize an outline. Then, I examined their plans. That was the technicality. I did not directly tell the students, something like "you should write it this way", then "the structure should be like this", no. I just*

> *let the students do what they can first. I did not directly give examples. I just told them what they need to do, "you should do this, and this."* (SS_T).

> *"I will introduce to you about how to make on... an old amplifier or speaker new, ehh… or speaker in your home, so that it can be made into- [inaudible 00.26] speaker by playing music without electronics cable or wireless."* (Video Sample 1).

Audio representation became the second most salient mode in the video project and students' video samples. Audio representation was promoted through text examples, which were in an audio file in the analyzing stage. On the other hand, 99.4% of the student-made video samples represented audio mode in students' speech, narration, and instrumentals as the music background. The students mostly use their own voice to deliver a speech and narrate a clip. While the students are talking, usually they also put songs or instrumentals as the music background. The following excerpt depicts the sample of audio representation in one of video samples.

> "[00.00] [frame showing a student with plain background; wearing a school uniform; EDM music playing in the background] *Assalamualaikum Warrahmatullahi Wabarakatuh. My name is B, from 12 Mechatronics B. I will take- I will explain how to check the capacitor and measurement resistor with alpha meter.*" (Video Sample 4)

Written language is represented almost in all of the project's stages in the form of text examples, learning materials, and student-made video scripts. Some students mentioned that they researched the learning materials from the Internet and textbooks since they were assigned to complete the conceptualizing stage independently. The student elaboration is available in the following excerpt. On student-made video samples, written language was represented in running texts in the video, such as logo, students' names, section labels, end credits, and more. The written language takes 11.7% of students' video samples. Figure 1 displays a picture captured from a video sample that shows written language representation in the student-made videos.

> *"Mostly, I explored the materials by myself since the teacher assigned me to search the materials by myself independently… I looked for the script examples on the Internet… Just surfing and exploring the Internet."* (S1_12)

Figure 1. Written Language in Video Sample 4

Visual representation was mostly evident in student's video samples. 100% of the student-made videos displayed visual representation in coherence with the topic the students had chosen. The videos were also played at the end of the project to complete the evaluation process. Therefore, the visual representation was also evident in the classroom activities though the intensities were insufficient. The following figure displays a visual representation

found in a video sample. The student is explaining how to operate a tool while showing the demonstration on the frame.

Figure 2. Visual Representation in Video Sample 2

Spatial representation was only evidently promoted in the student-made video samples. The representation took up 89.2% of the whole samples. Spatial representation could be identified in the background available for each frame. Further, the running text and object proposition's layout revealed the spatial representation shown by the students. For example, the video's main object was positioned in the middle of the frame to imply that the focus of the was on that particular object. The students demonstrated the awareness of spatial representation, as seen in Figure 3.

Figure 3. Spatial Representation in Video Sample 4

Similar to spatial representation, gestural representation was mostly spotted in the student videos. 86.1% of the video samples demonstrated gestural representations. Mostly, this particular mode was promoted in the form of body language, outfit, and demonstration. In the video, the students looked straight in the camera while talking with occasionally making hands gestures. Another representation of gestural mode is the choice of outfit that suits the theme of the video. Some students are found to be wearing workshop uniforms while taking the video in the school's workshop. The following figures provide the pictures captured from the video samples that can be identified as spatial representation.

Figure 4. Gestural Representation in Video Sample 4

Figure 5. Gestural Representation in Video Sample 2

Tactile representation becomes the least promoted modes of multiliteracies as it was only identified in the student-made video samples. Further, the proportion was only 37.6% in the form of a hands-on demonstration in the video. The students exhibited tactile representation through a hands-on demonstration of the topic they have selected and narrated the clip. It may be a new alternative tactile experience that can be transferred in the form of audio-visual aids. The following figure displays a sample of tactile representation in the student-made video sample in the form of demonstrations.

Figure 6. Tactile Representation in Video Sample 4

Student-made video project provides the facilities needed to promote multiliteracies in EFL learning to fulfill the need for digital era learning. The integration of technology, in which the making of the video, initiates the seven modes of multiliteracies. Technology may support the need of multimodal learning in this digital era to nurture students' ability in understanding and constructing meaning from various modes, as well as the underlying context and social aspects, along with the development of their linguistic skills (Gardiner et al., 2013; Buckley-Walker et al., 2017).

Related to the study's aims, the findings revealed that the student-made video project was able to accommodate the four stages of Knowledge Processes. Through a series of classroom activities, the experiencing, conceptualizing, analyzing, and applying stages are evident along with each respective principle's achievement. The stages are a set of thinking sequences that help the students process and construct meaning, structures, and linguistic aspects (Healey, 2016). Therefore, the presence of Knowledge Processes stages and the principles may indicate that multiliteracies skill is fostered through the student-made video project.

The experiencing stage can be identified at the beginning of the project, in which the introductory stage. The students were introduced to the topic with activities, such as classroom discussions and peer discussions. Through the discussion sessions, students' background knowledge was "juggled" to relate them with the learning objectives. Subsequently, the introductory stage exposed 'the new' aspect for the students by requiring them to search for more possible ideas they were going to write. The students explored more ideas to find uniqueness and feasibility related to their study program but avoid similarities in selecting the same topic with their peers. According to Kim and Xing (2019), it is necessary to engage students in activities that connect their background knowledge with the new materials as it creates familiarities and a sense of connectedness, which are essential in constructing a meaningful literacy experience.

The conceptualizing stage covered recognizing the social function, language structures, and generic structures of the text. The activities consisted of individual research in Internet research, textbooks references, and peer discussion to gain knowledge about the structures. The conceptualizing stage referred to principles of naming and theorizing to solidify students' structural knowledge about the topic and the text they are going to make. It is in line with the aim of the conceptualizing stage, consisting of conscious processes of gaining skills in understanding a logic, system, or underlying issues (The New London Group, 1996; Healey, 2016).

The analyzing stage scoped the process of evaluating and reasoning. The students were assigned to evaluate the text they have constructed to identify the mistakes they made, correct the mistakes, and reason why the mistakes were made and fixed. The activities consisted of personal consultation with the teacher and peer discussion. Some students also asserted that they used online translation and grammar checking services. In this stage, the students were required to be critical as they should evaluate their text and provide reasons for their choices to create a better-revised script for their final video project. According to Kim and Xing (2019), the analyzing stage tends to nurture students' critical processes in viewing the text's context in the selected topic. However, the research findings revealed that the discussion in the analyzing stage of this student-made video project was scoping text technicalities and grammatical aspects only. Nonetheless, the students were still required to evaluate and provide reason during the revision process, which nurture their critical thinking scheme.

During the applying stage, the activities gravitated towards the process of video-taking. The activities followed the reconstruction and innovation principles in the form of script revision and script transfer to videos. Reconstruction involved the revision process as the students applied the structures they had already known to correct the mistakes in their mistakes. Innovation consisted of creative processes in developing the structures represented in the form of video-taking and video-editing. It is in line with the principles of applying stage in which a transferring process of the structures into a new setting, which in this context is written text to an audio-visual media (Cope & Kalantzis, 2009b).

The Knowledge Processes framework consisted of four stages of the thinking process, but it is not done in sequence within the research context. By the end of the stage, the students and the teacher conducted an evaluation. Some of the videos made by the students were played in front of the classroom to give the students a chance to do peer evaluation.

The classroom evaluation process is in line with the analysis stage principles, which can be referred that the analyzing stage was re-applied after the applying stage. Cope and Kalantzis (2015) asserted that the mixture and variation in the stage sequences are acceptable to fulfill the students' learning needs. The teacher may view the evaluation session as necessary to re-examine the students' knowledge intake, the project, and appreciate the effort the students have put in making the video. Thus, through a teacher's thorough observation in reading the learning dynamic, the re-application of the applying stage by the end of the project might be necessary (Cope & Kalantzis, 2015).

The modes of multiliteracies are also focal in the integration of multiliteracies through student-made vide project. All seven modes of multiliteracies were evident throughout the project with different types of activities and intensities. The top four most salient modes represented throughout the project were oral language, audio representation, written language, and visual representation. On the other hand, the students highly utilized visual, audio, and spatial representations to represent the messages they delivered through the videos they made. Through the findings, the integration of more than one mode is identified throughout the project, which opened a broader variety in processing and constructing means. It is suitable for the need for communication dynamics in the 21st century, which embraces the idea of multimodal communication to enrich understanding of social, economic, and political awareness (Carpenter & Lee, 2016; Alexander et al., 2016).

The students were also assigned to create a script before making the video, enabling the process of mode transfer from written to audio-visual aids. Cope and Kalantzis (2009b) believe that each mode can transmit the same massage with unique capabilities to reframe the meaning. The presence of multiple modes in the student-made video project enriches the probability of meaning transfer along with the underlying context and messages. Further, the 'switch' of mode use is commonly known in the world of multiliteracies as synaesthesia, which leans more on the psychological aspect of the information user (Cope & Kalantzis, 2009b). The normalization of mode switching and transferring may accommodate students' preference in using modes to afford more according to their psychological ease (Cope & Kalantzis, 2009b). It relates to one of the multiliteracies goals: removing the barrier of literacy that exclusively favors traditional literacies, such as written and spoken languages (Leander & Boldt, 2012; Olthouse, 2013). Therefore, the presence of the seven modes of multiliteracies and the activities that give the students the opportunities to switch between modes may enrich their literacy experiences and skills.

5. CONCLUSION

Student-made video project fosters multiliteracies in English learning for vocational high school students as it integrates multimodal thinking framework, linguistic development, and technology to answer the demands of 21st-century communication dynamic. The student-made video project consists of Knowledge Processes stages, namely experiencing, conceptualizing, analyzing, and applying. Through each stage's activities, the students performed their dynamic in processing and constructing meaning about related topics and performing linguistic development. The student-made video project also represented all seven modes of multiliteracies in various intensities. The most promoted modes are oral

language, audio representation, and written language, followed with visual, spatial, gestural, and tactile representations, which are represented in project activities and the video outcomes. The seven modes' presence indicates the project has progressed towards multimodality as it incorporates technology in language learning that provides opportunities for multiple modes to be utilized. Therefore, multiliteracies promotion through student-made video project is commended for EFL learning in vocational high school. It is designed to equip students with multimodal communication skills relevant to their study program and demand the digital workforce demand.

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