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Multimodal Project-Based Learning in listening and speaking activities: Building environmental care?

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Abstract

This Participatory Action Research (PAR) aims to describe how the enactment of Multimodal Project-Based Learning of Green Listening is in Extensive Listening and Speaking class of English Language Education Department, UIN Walisongo, how Multimodal Project-Based Learning of Green Listening and Speaking facilitates students' listening and speaking skills, and how Multimodal Project-Based Learning of Green Listening and Speaking facilitates environmental care within students. Twenty-four students and one teacher were recruited purposively as participants. Findings showed that enacting multimodal project-based learning aiming to facilitate language skills and build environmental awareness is a complex and staged process requiring the participation of researchers, teachers, and students. Further research needs to look into the perspectives of teachers while designing a multimodal language learning project. In addition, the investigation of the instructional design in conjunction with the project must be thoroughly scrutinized.

***Keywords**: multimodal project-based learning; environmental care*

INTRODUCTION

Multimodal Project-Based Green Listening is an alternative combination of materials, methods, and media, which is expected to prepare students for the challenges of life next 10-30 years. By examining those challenges, the teacher's responsibility becomes heavier. A teacher, as a professional educator, must be professional in serving his students through effective design of the learning process.

Besides improving students' listening skills and enriching students' knowledge on environmental care, the "Green Listening" materials taught through Multimodal Project-Based Learning may trigger students to care about their environment. The given projects in listening class pertaining to environmental preservation sensitize students with such environmental crises as deforestation, waste problems, to global climate change. Our earth has called us to take some measures heading to its protection and conservation

against: (1) 75% severely altered terrestrial ecosystems due to human acts, (2) up to 1 million threatened with extinction species, (3) over 85% lost wetlands, (4) around 90% greenhouse gas emissions since 1970, and (5) one football field every minute per day forest lost (Adams, 2020).

Multimodal Project-Based Learning of Green Listening challenges students with product-oriented performance-based assessment. Through this assessment, students' scores are made based on such products as PowerPoint presentations, posters, flyers, videos, and storybooks, not on the process of making the products. With multimodal, it is expected that the products are completed by combining: (1) texts/genre/purposes, (2) images/visual, (3) sounds/audio, (4) videos, gestures, costume, poems, or websites. The combination shows student creativity in making the products more meaningful. Creativity empowers students as individual and social creatures who must survive by living their life.

Multimodality is essential for meaning-making and communication. Bakhtin defines meaning-making as "the relationship between a genuine, interested, information-seeking, question and serious response to it" (Matusov, 2020). Therefore, making meaning begins with questions, interests, and searches for information by students in more depth. Furthermore, he adds that students can be said to be interested when they start asking the following questions: a) what other people think, how they feel about it, and how they define it; then b) what they do, feel, relate to, and think. In short, the making of this meaning does not only rely on personal abilities but also relates it to the perspectives of others.

Studies on multimodality had been widely done on varied foci, i.e., multimodal digital project assessment, multimodal literacy, inquiry, and motivational capacity (Drajati et al., 2018). The use of multimodal to support students' projects is projected to fill the void of the previous studies. Meanwhile, the exploration of project-based learning also had been carried out by some previous researchers, for example, Project-Based Learning in connection with 21st Century Skills (Bell, 2010), an activity theory analysis of Project-Based Learning (Gibbes & Carson, 2014), Project-Based Learning in environmental education (Genc, 2014), and Project-Based Learning in 10Cs Curriculum (Greenier, 2018). The project-based learning in language teaching and learning context specifically, which deals with materials development intended to facilitate language skills and environment care, remains underexplored.

Project-based learning in this study is aimed at supporting students' listening skills, stimulating their creativity and sensitiveness in a caring environment. With that aim, this study is expected to complete the gap area of the previous studies. Empirical evidence shows that Project-Based Learning helped students define environmental problems more clearly and take on more active tasks in the solution process (Genc, 2014). This teaching method is also seen to be meaningful in building social and affective capacities, linguistic knowledge, communication skills and in empowering students to create projects that are original, purposeful, and rewarding.

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A study on multimodal had been done by Adsanatham (2012). He proved the link between collaborative students made grading criteria with the understanding and the process of composing multimodal. Students were invited to produce assessment guidance to score their generated multimodal text. Before the project was given, they were enlightened with the scaffolded instruction, the importance of the project based on the course curriculum. This research is flawed regarding the measurement of students' comprehension since it only used an interview with three students without being backed up with a test.

The description of teachers' and pre-service teachers' perception and implementation of TPACK and multimodality was done by Drajati et al. (2018). From a questionnaire spread to 100 in-service teachers and pre-service teachers, they describe demographic teachers with technology, pedagogy, and content knowledge literacy. This research has a good side in which it used varied respondents in terms of profession and demography, but the findings still need to be triangulated by doing observation and document study (studying lesson plan, for example) to get valid data representing the participants' literacy of TPACK and modality.

Employing multimodal interactional analysis, Knight et al. (2018) studied online spoken interaction tasks carried out navigational acts using an audio-conferencing tool. The study shows learners' meta-modal talk by eliminating oral negotiation from talk in the target language. The study enlightens readers on the roles of learners as tool users or managers and the process of nonverbal meaning-making.

Meanwhile, the study on project-based learning also had been carried out with varied foci. For example, Project-Based Learning in connection with 21st Century Skills, an activity theory analysis of Project-Based Learning, Project-Based Learning in environmental education, and Project-Based Learning in 10Cs Curriculum (Greenier, 2018).

A comprehensive review on the aspects learned from implementing Project-Based Learning was done by Bell (2010). He identified that the implementation of project-based learning might drive students to be good communicators, advanced problem solvers, efficient collaborators, and creative actors. Those roles are essential to equip students with 21st-century skills for their future life. The integration of 21st-century skills mainly deals with learning ability and innovation comprising critical thinking, problem-solving, innovation, creativity, communication, and collaboration. Integrating the skills, teachers need to be good at designing and implementing student-centered learning, employing information technology to facilitate learning. Teachers must be prepared for a more complex work environment, have good literacy in the use of information and communication technology (Asowayan et al., 2017).

The description of the implementation of Project-Based Language Learning in a university language program was done by Gibbes & Carson (2014). The uniqueness of the implementation is the use of activity theory to analyze learner reflection of Project work. The projects were viewed as the outcomes, which would be theoretically in line with the objects of activity,

effective ways to reach the objects of the activity. For some subjects, the outcomes might not be aligned with the object of activity. The evaluation of Project-Based Language Learning was mostly positive.

Similar to this study, Genc (2014) investigated the effect of Project-Based Learning on students' attitudes toward the environment. Thirty-nine students joined an "environmental course". The basic concepts of environmental care and preservation were given. To implement the concepts, students had group projects dealing with environmental problems. The "course" was influential in building students' positive attitudes toward the environment. They defined environmental problems more clearly and found the activities enhancing creativity. This research is different from our research in terms of methodology. This research used a mixed-method explanatory design. Meanwhile, our research is participatory action research. In this research, students are grouped in an "environmental course" whereas our research integrates environmental education in Advanced Listening Class.

Greenier (2018) exposed a model of Project-Based Learning called the 10Cs of Project-Based Learning TESOL Curriculum. The model incorporates the existing principles of Project-Based Learning with the elements of second language development. The curriculum is student-centered, dominated by collaborative engagement, with the teacher as a facilitator. The aim of the curriculum is to develop students' socio-affective capacities, linguistic knowledge, communication skills, and creativity. This study developed Project-Based Learning in the frame of second language teaching, whereas our study only implements the existing principles of Project-Based Learning to build students' positive attitude to the environment in the context of listening class of second language teaching.

The objectives of the research are to find out a) how the enactment of Multimodal Project-Based Learning of Green Listening is in Extensive Listening and Speaking class of English Language Education Department, UIN Walisongo, b) how Multimodal Project-Based Learning of Green Listening and Speaking facilitates students' listening and speaking skills, c) how Multimodal Project-Based Learning of Green Listening and Speaking facilitates environmental care within students.

METHODS

Research design

Project-based learning is a participatory instructional tool in Green Listening Speaking activities. It aims to empower teachers and facilitate students' learning and environmental awareness. This research question examines how the implementation of project-based green listening multimodal learning facilitates the listening and speaking skills of EFL students. This study uses a participatory action research design. Participatory is a study that involves participants in three stages of inquiry, action, and reflection. In this study, PAR becomes an investigative tool to document the details of the design and use of multimodal project-based Green Listening and Speaking learning (Greenwood et al., 2016; S Kemmis et al., 2013; Stephen Kemmis & McTaggart, 2005; Leff et al., 2004; Peter, 2001).

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Setting and context

This research is undertaken in an EFL setting, particularly in the Extensive Listening and Speaking course. This course will build and enhance students' listening and speaking fluency. It also provides activities that let them receive a lot of comprehensible input from authentic listening texts such as green listening, intercultural issues, and movie. Students will engage in a myriad of listening-speaking activities with a wide variety of themes and topics repeatedly in defined time guided with Listening & Movie Logs. The ultimate goal of the course is to train students to gain vocabulary development, accent recognition, and productive skills.

Gaining and negotiating access

In this study, researchers negotiate access to research sites with the school administrator as the gatekeeper. The gatekeeper controls access to sites and is participating actors, influencing power relations and having authority whether a researcher is allowed for a research project. Researchers must be aware that classrooms have norms that need to be adhered to (Crowhurst, 2013; Oliver, 2010).

Participants' recruitment and profile

The participants of this consist of a teacher and 26 students of the Extensive Listening and Speaking course. Since this research deals with human participants, informed consent is distributed, understood, agreed and then signed by the participants. The consent gives detailed information that the data gained would only be used for academic purposes.

Research procedures and data collection methods

Research procedures

This research works under pedagogical practice and investigative practice. Teacher and researcher design and plan the teaching-learning of Extensive Listening and Speaking course. The project covers making posters or flyers to be posted on social media accounts such as Instagram, Facebook, and WhatsApp.

The stages of multimodal projects in the Extensive Listening and Speaking course are going through the following:

Table 1. The stage of multimodal project

Stages	Details	
Stage 1: Introduction	Introduce teacher to the canva platform for the multimodal project, and provide students with various listening materials on YouTube, guided with a listening log. This is aimed to facilitate students with inspiration and reference.	Help teacher to recognize different multimodal projects for listening and speaking, watch students listening activities through listening log to ensure they have topics for the next activity.
Stage 2: Scaffolded	Guide teacher to design lesson plan with the multimodal project including materials,	Scaffold teacher to draft lesson plan with the multimodal project, and prepare platform tutorial for

creation of learning design with multimodal project	instruction, worksheet, projects, and evaluation.	students.
Stage 3: Creation of multimodal project	Students work individually to create posters/flyers and a video campaign about environmental care.	The students rework and edit their project, and post them on their social media accounts such as Instagram, Facebook, and WhatsApp.
Stage 4: Presentation of Multimodal project	Afford students the chance to present their multimodal projects to the class.	Facilitate a conference on multimodal projects, provide the opportunity for other students to comment/appreciate, and give feedback on the students' multimodal project.
Stage 5: Reflection	Help the students reflect on their learning process in creating multimodal projects.	Assist and guide students to reflect in the presentation and entire learning, creating and campaigning using multimodal project.

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Data collection methods

Empirical data of this research are collected through observation, focus group, and interviews, documentation or students' learning artifacts, and reflections.

Observation

Observations were used to examine classroom life dealing with the teaching learning process adopting multimodal projects. The observation is video recorded to capture detailed classroom life and explore issues that happen during the teaching-learning process in the classroom. It is also aimed to find out how the teachers and the students interact with materials and with each other.

Students work

Students' works refer to the documents or artifacts after creating multimodal projects, which refers to what the students generate and the texts the students work with. They become a document of meditational tools for facilitating pedagogic practices. These artifacts depicted evidence of students' ability discourses. The researcher has secured permission from the students to copy the samples of their work.

Focus group and interview

The focus group discussion and interviews become participants' verbal justification of what is observed in the classroom and what is unclear in the observation session. These methods will also be employed to reveal the initial conditions of students' language skills and environmental care perspectives. The process is conducted in Bahasa Indonesia so the participants could give richer data. These data collection methods are digitally recorded.

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Reflective journal
Students' reflections and learning artifacts will become evidence of project-based learning from the green listening and speaking materials developed. This reflection becomes a tool for action and change as it may help to develop self-awareness of experiences. To facilitate reflection, the teachers write reflective journals as an example for students. This reflection describes what they experience during the pedagogical journey and learning engagement. The students write a reflection to document their learning journey and to enhance their own learning awareness.

Data analysis
The nature of the data was interdiscursive since the data could not be created, analyzed, and presented in isolation to paint a thorough picture of social reality or life. All the empirical data will be transcribed, reviewed, and then qualitatively analyzed. The data are categorized under interaction analysis using Anderson (2009) interaction framework to investigate teacher-students and students-students interaction during the enactment of multimodal project-based learning of the green listening class. Then, the data gathered from interviews and focus group discussions are analyzed using thematic analysis by Braun and Clarke to identify the themes (Braun & Clarke, 2006). The critical thematic analysis was used to critically identify emergent or recurring patterns or themes of findings. This analysis becomes an analytical tool aimed at identifying, analyzing, and reporting patterns (themes) within data (p.79). There are five steps in thematic analysis, which moves back and forth, namely:

a) Familiarization with the data. This is conducted through repeating reading and re-reading the data in order to familiarize with the data. The previous knowledge about the participant and the context researched helped the researcher in writing initial ideas for selective coding.
b) Initial coding. This phase is done by highlighting the texts that will be analyzed. This coding helps understand and find out the themes or patterns of the data that emerge as a basis to answer the research questions. So, the relevant data in the form of excerpts, vignettes, and narratives were coded to be analyzed further.
c) Searching for themes. In this stage, the highlighted data is listed and sorted out to identify patterns of the data. In this way, key themes of findings could be searched so analysis of the coded data could be done.
d) Reviewing themes. Re-reading and making double-checking to the coded themes is undertaken to search for the elicited important features of the data which relevant to the research questions. Doing this phase, careful and detailed thematic data analysis could be reviewed and made.
e) Defining and naming themes. After the themes are reviewed, an analysis of each finding theme should be developed.

RESULTS AND DISCUSSION

The research aims to find out how the learning process of Green Listening and Speaking using a multimodal project runs. The learning material focuses on

three things, namely Pollution, Waste, and Deforestation. Students study from their own homes, and they must connect to the internet.

Meeting I

Students and lecturers met via the Zoom Meeting platform to discuss assignments, objectives, and learning activities. It aimed to create an understanding between lecturers and students in the learning process. Students asked about unclear explanations and worked on multimodal projects carried out by lecturers.

Then, the lecturer conducted a learning brainstorm by displaying pictures of human activities taking out the trash. In addition to making presentations, the lecturer also gave worksheets to students that asked them to identify the various types of waste they found in their environment. Students answered the questions posed by the lecturer and then discussed the pictures and questions in the worksheets. In this activity, interaction occured in two directions, namely between lecturers and students.

The worksheets were posed about analytical questions where students should observe pictures. Then they have to identify the pictures and sources of plastic waste, why people use much plastic, and predict possible problems that arise from this plastic waste if not addressed immediately. In this stage, learning activities are carried out in two models. Firstly, students do it independently or answer the lecturer's questions directly. Secondly, they are grouped in a breakout room to work in groups. The lecturer gives instructions on what students should do to know what to do when working in groups. The task that must be done is to appoint a group leader, choose students who are in charge of recording the discussion results, and choose a spokesperson who will present the results of the discussion. Meanwhile, other students in the group are asked to describe, identify, and answer questions so that each group member has a role and function. After that, the lecturer facilitated group presentations and discussions attended by all class members in the main room of the Zoom meeting.

Then, the learning activity was watching a short video from Youtube, which the lecturer displayed through the share screen. This activity was guided by worksheets that had been prepared and distributed to all students. Before playing the video, the lecturer distributed worksheets and explained what the students had to do while watching the video. However, when watching, they had to select and screenshot 3-4 parts of the video, which they thought represented the main problem of the video topic. They had to put the screenshots in the available chart on the worksheet. The results of this screenshot would be used as a guide in the class presentation dealing with the video content. After that, there were six SHOWED-based critical questions that students had to answer, namely, What is SEEN here? What is really HAPPENING in the photos? How does this situation/phenomenon relate to OUR lives? WHY are things happening? How could these photos EDUCATE us? What can we DO about this? All these activities were carried out by students individually.

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When the individual assignment stage was complete, the lecturer facilitated students by holding a virtual conference where students presented the results of their assignments. The other students listened and asked questions or choose students to ask randomly. In this way, all students paid attention to the material and were responsible because they would turn to presented and asked questions. In addition to facilitating students, lecturers also occasionally asked students questions as a variety of activities. Lecturers conducted formative assessments on the quality of presentations and questions posed by students. This formative assessment was carried out during the teaching and learning process.

At the end of the lesson, the lecturer gave examples of writing learning reflection and explained the tasks for the next meeting. Students looked for videos related to pollution, waste, and deforestation for the upcoming meeting and then watched them in six days or one week. They were free to choose the type of video and channel they wanted, but they had to refer to the three topics above. This activity focused more on listening activities with the intention of students doing many exercises and listening activities from various listening sources to have sufficient references and training supplies. To guide and control this activity, the lecturer provided a listening log that students could fill in. This listening log feature consisted of a) the day, b) the minute watching the video, c) the topic, d) who made the channel, e) a summary of the video content, and f) the video's best part. After that, the lecturer gave examples of learning reflections that students had to fill out. This reflection consisted of what the students had learned and how these learning materials might help students. Students uploaded all their tasks into the learning management system or e-learning as evidence of work, learning artifacts, and learning assessments.

Meeting II

The learning process was carried out at the second meeting in two modes, namely, synchronous and asynchronous. Synchronous is done through Zoom and Google Meet, while asynchronous is done through a learning management system or e-learning and WhatsApp groups. The second meeting activity began with a Synchronous Meeting via Zoom. The lecturer reviewed the previous material and continued by checking the video link from Youtube that the students had watched. This check is carried out to determine whether the videos that students watch follow the topics discussed and how far students are responsible for doing assignments. Hence, the lecturer provided an opportunity for students to explain why they chose the video and their expectations from watching the video. Students with their wishes or randomly selected to then convey to all students in the class. This activity focuses on honing speaking skills in English for those who present while other students hone the listening skills of their presentation partners.

Activities at the second meeting were continued in asynchronous mode, namely discussions through WhatsApp groups and watching videos independently from the chosen youtube link. Again, the video is under the interests or desires of students and the topic of discussion in class. In addition to watching videos, students must also fill out the Listening Log, take

screenshots, and answer questions in the Worksheet as shown in the previous meeting. In this second meeting, students also wrote reflections on their learning experiences, both synchronously and asynchronously. All assignments are archived and collected in e-learning.

Meeting III

The third meeting was a session where students communicated their experiences while watching video material and explanations regarding the poster-making project they had to do in the next meeting. In communicating the task of watching videos and screenshots, activities were conceptualized in the form of conferences. Each student would have a turn to present their experiences, and their colleagues would listen and ask questions about the presentation material. The opportunity to ask questions was given to all students with their own will or desires. To make the activities were not monotonous, the teacher asked students who had not been appointed to raise questions. This activity reflected a combination of English speaking and listening skills.

After the conference, the lecturer conveyed that students had to make posters or flyers about an invitation to care for the environment. To make this poster, the lecturer gave a video tutorial to students on how to make a poster using Canva. Students posted their poster or flyer results on their social media such as Instagram, Facebook, or WhatsApp status when they had completed making posters. In addition, they had to display the responses of their friends who saw their posts. At this third meeting, students also wrote reflections on their learning experiences. All assignments were collected in e-learning that the lecturer had provided.

Meeting IV

At the fourth meeting, students had the opportunity to communicate the results of their experiences in posting posters or flayers that they had made to their social media accounts such as Instagram, Facebook, and WhatsApp and responses from friends who saw their posts. Communication took in the form of conferences or presentations where other participants listened and asked questions. Each student would have a turn to present their experiences, and their colleagues would listen and asked questions about the presentation material. The opportunity to ask questions was given to all students by following their will and appointing students directly to ask questions. This activity combined speaking and listening skills in English and students' self-confidence.

After the conference, the lecturer delivered a project that students had to do: making a campaign video about an invitation to care for the environment. To make this video, the lecturer gave video tutorials to students on how to make and edit videos. When the students have made the video, they post the video on YouTube. In addition, they also have to post comments from their friends who watched their video posts. At this fourth meeting, students write down reflections on their learning experiences. The various assignments that have been made are collected in e-learning that the lecturer has provided.

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Meeting V

The fifth meeting was the stage for selecting and evaluating projects that students had carried out. The lecturer conducted a conference by selecting several videos and showing them in class. Then students were asked to provide comments and their assessment of the video that was displayed. After that, the students evaluated their experience in working on a multimodal project based on learning how learning facilitated them in learning English and helped them in caring for the environment.

The summary of activities on the enactment of multimodal projects-based learning in the Extensive Listening and Speaking course are going through the following:

Table 2. The learning stage of Multimodal Project-based learning

Stages	Details of activities	
Meeting 1: Introduction	Introduce teacher to the canva platform for the multimodal project, and provide students with various listening materials on Youtube, guided with listening log. This is aimed to facilitate students with inspiration and reference.	Help teacher to recognize different multimodal projects for listening and speaking, watch students listening activities through listening log to ensure they have topics for the next activity.
Meeting 2: Scaffolded creation of learning design with multimodal project	Guide teacher to design lesson plan with the multimodal project including materials, instruction, worksheet, projects, and evaluation.	Scaffold teacher to draft lesson plan with the multimodal project, and prepare platform tutorial for students.
Meeting 3: Creation of multimodal project	Students work individually to create posters/flyers and a video campaign about environmental care.	The students rework and edit their project and post them on their social media accounts such as Instagram, Facebook, and WhatsApp.
Meeting 4: Presentation of Multimodal project	Afford students the chance to present their multimodal projects to the class.	Facilitate a conference on multimodal projects, provide an opportunity for other students to comment/appreciate, and give feedback on the students' multimodal projects.
Meeting 5: Reflection	Help the students reflect on their learning process in creating multimodal projects.	Assist and guide students to reflect in the presentation and entire learning, creating and campaigning using the multimodal project.

In this study, we would describe how multimodal project-based learning helped facilitate students to practice listening and speaking skills. Students

engaged in a myriad of listening-speaking activities with a wide variety of themes and topics repeatedly in routine and defined time guided by the teacher. The ultimate goal of the course was to train students to gain vocabulary development, accent recognition, and productive skills, particularly pronunciation and speaking.

Students created multimodal projects in the form of environmental awareness posters. In making posters, students made them in various topics and problems. One participant created a campaign with the theme "Reducing Plastic Waste in the Ocean". This step was a practical step to reduce plastic waste. He was happy to invite discussion and emphasized that adding two more steps, namely refuse and remove, would be more anticipatory and better.

Students' reflection on the implementation of the multimodal project would reveal the extent of the project in facilitating students' environmental care. The evidence had been provided by students' experience through their engagement in creating the poster and video campaign, which were then commented on by the audiences. In session 15, I got new knowledge to invite other people and friends to reduce air pollution, one of which was to go green starting in their homes. Participants were also asked to create poster assignments related to the invitation to reduce plastic waste posted on social media. To realize a sustainable nature required good cooperation from everyone, and we needed to remind each other so that people around us could preserve nature.

Students were asked to make posters about the importance of disposing of waste in its place so that it could be managed or recycled by the responsible party. Participants were encouraged to keep the environment clean and not polluted by anything that endangers health. If plastic waste could not be decomposed in the soil and causes the earth to become damaged and infertile, our health would be affected. Students were asked to create a Social Media Campaign and presented it in class. Students had the opportunity to provide feedback and express their opinions.

By carrying out this campaign, the community was invited to think again before using items made of plastic. Plastic waste harmed the environment if thrown away, but it could be turned into valuable items if we had the awareness and creativity. In the Social Media Campaign activities carried out in extensive listening and speaking coursework, each student created and uploaded posters on Instagram, WhatsApp, and Facebook on how to protect the environment from waste. Each student got the opportunity to ask a friend who was doing the presentation so that they got a clearer explanation of what was being asked. On social media, everyone was free to comment on anything related to the uploaded poster.

The social media campaign was part of the course and aimed to encouraged people to become more conscious and caring for the environment. Twenty-five Indonesian students had been reflecting on how they used social media to campaign for the reduction of various pollutions and irregular waste. The twenty-fifth participant wrote the reflection: People should know that the impact of using plastic goods, especially plastic bags, was not good. Some of my friends were good at delivering their material and were willing to give their

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arguments. However, the results uploaded on social media were many viewers who watched without arguing, so they seemed less concerned.

Discussion

In this study, students learned to build their language skills through understanding environmental issues that occurred in their surroundings. The process engages them in functions and meanings, uses technology to communicate ideas, deploys the projects created as semiotic tools to engage in the multimodal project. The learning process reflects two interesting constructs to be identified, namely the project and the learning modes. The learning process assigns projects to analyze and come with a solution to the environmental problems. The project-based learning involved participants or students as active problem solvers in which they think reflectively on project-based learning processes either individually or in a group. This process invited students to realize knowledge and experience by making a connection between what they learn and what is going on outside the classroom (Gülbahar & Tinmaz, 2014).

In terms of learning mode, the project that has been created by students provides opportunities for students to learn in multiple modes (Yi & Angay-Crowder, 2016) and perform the knowledge they have gained in different ways, e.g., utilizing technological tools. The technological tools help students to produce multimodal texts combining texts, images, audio, and videos in digital forms. This is what is called multimodality, which refers to communicating and meaning-making employing different modes such as textual, aural, linguistic, spatial, and visual (Li, 2020). Providing students with experience, knowledge, and skills of adopting multimodal texts in constructing and developing learning strategies is crucial during the era of information and communication technologies.

CONCLUSION

This study gives an example of how multimodal project language learning can be organized and implemented to build environmental awareness. They get the opportunity to practice their listening through extensive listening activities and speaking skills through class presentation and conferencing. The life experiences benefit students in establishing environmental care not only among students but also among visual campaign viewers.

Pedagogically speaking, this study gives an example of how multimodal project language learning can be organized and implemented to build environmental awareness. Despite the research significance, further research requires to investigate teachers' views in designing the multimodal project language learning. Additionally, the investigation of the instructional design combined with the project needs to be closely examined.

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