

Digital Content Creation in an L2 Classroom using a Project-based Approach Design and Pilot

プロジェクト型アプローチを使用したL2クラスルームでのデジタルコンテンツ作成
考案とパイロットスタディ

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Keywords : Digital content, project-based learning, project-based language teaching, content-based instruction.

Abstract : Project-based learning in the language classroom can supplement language-centered methodology. This approach focuses student effort on deep understanding of content while providing opportunities to develop planning, teamwork, and leadership skills as well as to follow a set of tasks through to completion. The digital content creation pilot consisted of back to back projects done by and assessed as small groups. Individually, students kept journals of their group's progress. The journals and questionnaires were used for assessing the pilot's effectiveness, student performance and motivation. The results showed that students had an overall high degree of satisfaction with doing project-work as well as interest to explore different kinds of projects within the spectrum of digital content. Students also enjoyed creative freedom and participating in group work. This pilot also highlighted the importance of group management strategies, applicable both inside and outside of the classroom.

要旨 : 言語学習においてプロジェクト型学習法は、言語を中心に学ぶ従来型の学習法を補足することができる。学生は一連の課題に沿ってプロジェクトを完了する機会を与えられ、プロジェクトの内容を深く理解することに努力を集中させつつ、計画作成、チームワーク、リーダーシップ等のスキルを磨くことができる。デジタルコンテンツ作成のパイロットスタディは、小規模なグループで行う連続した2つのプロジェクトで構成された。学生は一人ひとりプロジェクトの進捗状況を記録するよう指示されていた。その記録と最後の授業で収集されたアンケートを元に、学生のモチベーション及び成果に加えてこのパイロットスタディの有効性を評価した。その結果、多くの学生がプロジェクトに取り組むことに高い満足度を示し、他の種類のデジタルコンテンツのプロジェクトにも関心を示した。自由に新しいものを創り出すという点やグループでプロジェクトを行うという点も高評価だった。このパイロットスタディでは、教室内外でのグループ管理ストラテジーの重要性も浮き彫りになった。

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I. INTRODUCTION

“The book is too easy” and “We’ve learned this in high-school already” are common refrains among my international students in their first-year English courses. These students often struggle to recognize

challenge and value in what their textbook has to offer, with one student explaining, “the textbook [doesn’t] cater towards our English proficiency... so I found it to be rather easy”, and another claiming, “there is nothing in the books that we didn’t learn back in Vietnam”. In the L2 classroom, the lack of

both challenge and real-world application of language can be demotivating. Therefore, it is essential to find ways to address the needs of students with high communicative competency.

International Pacific University is set to change its curriculum from April of 2020 (*豊かな非認知スキルズ in Discovery*, 2019). This curriculum, translated roughly as “Enrichment of Non-cognitive Skills”, is predicated on student acquisition of five academic skills; *conducting research, discussion, thought process, communication, and speech*. Notwithstanding these changes and adhering to the most recent guidelines for “Improvement of Student’s English Abilities” (2015) outlined by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), it is understood that proficiency in “English Communication” is included as a learning outcome within the new curriculum (see Ogawa, 2019).

The design and pilot of the Digital Content Creation course in 2018 resulted from a need to provide content that is both challenging and authentic. The use of a project-based approach provides a setting for pursuing the institutional goal of communicative competency. Furthermore, it is also perceived as a basis for applying learning approaches such as *active construction* to foster deep understanding; *situated learning* to make content relatable; *social interaction* to construct shared understanding; and *cognitive tools* to enhance or conceptualize knowledge (Krajcik & Blumenfeld, 2006). These skills are acquired by making the learning process the central foundation of instruction (Thomas, 2000; Thomas, 2017) where language is encountered through a series of sequential and authentic activities, but it is often not the focus of the project.

II. BACKGROUND

The origin of Project-based Learning is linked to William Heard Kilpatrick’s extension of John Dewey’s educational theory of “learning by doing” (Hedge, 1993; Knoll, 1997; Barron et al, 1998; Wrigley, 1998; Beckett, 2002; Beckett & Miller, 2006; Thomas, 2017). Kilpatrick’s work titled “The Project Method” (1918)

promoted the use of experience to solve problems. Since the early 90s, the principles of project-based design have centered on student exploration of driving questions or problems meant to push the learning process (Blumenfeld et. al, 1991; Thomas, 2000; Krajcik & Blumenfeld, 2006), resulting in the completion of a final product.

Driving questions or problems, whether defined by the instructor or students, should allow for flexibility in approach without limiting students to a single prescribed process that may result in a pre-decided result (Blumenfeld et al., 1991; Thomas, 2017). Thomas (2017) suggests, “Rather than merely transmitting knowledge, project-based learning is underpinned by an experiential and reflective process and develops from an open-ended approach that may not be overly restricted by pre-determined plans” (pp. 25–26). Thomas (2000) outlines salient features of project-based learning summarized as *centrality* (projects are the centerpiece of the curriculum), *constructive investigation* (students carry out a series of tasks designed to investigate a question/problem), *autonomy* (students are given agency and responsibility in their investigations), and *realism* (projects are authentic, mimicking the application of real-world tasks). Similarly, the British Council highlighted centrality, investigation and collection of data, interaction, and “a final product” as “core activities” in the definition of project-based learning (Thomas, 2017). In applying these parameters, project-based learning is viewed as more than simply group-work (see Stoller, 2002).

Project-based Language Teaching (PBLT) gained popularity after language teachers began applying content-based instruction (CBI) methodology in the 1980s as a reaction to traditional language teaching methods (Beckett, 2002). Project-work in the language classroom is considered an extension of Content-based Instruction (Stoller, 2002) and has been used as a supplement to traditional language teaching methods, though not necessarily a replacement. Various terms are used synonymously in reference to project-based instruction including *project work, project method, project approach, project-oriented approach, and project-based learning* (Beckett, 2002).

Stoller (2002) identifies the following six characteristics present in project-work; (1) *Project work focuses on content learning rather than on specific language targets*; (2) *Project work is student-centered*; (3) *Project work is cooperative and often group oriented, rather than competitive*; (4) *Project work leads to the authentic integration of skills and processing of information from varied sources*; (5) *Project work culminates in an end process*; and (6) *project work is potentially motivating, stimulating, empowering, and challenging*. Projects utilizing these features can take on various forms and span several weeks or an entire semester.

While the “driving question” is often seen as an integral element of project-based learning in settings such as the science classroom (Petrosino, 1998; Barron et al., 1998; Thomas, 2000), Stoller (2006) states that instructors in the L2 language classroom operate “with the ultimate goal of increased content knowledge and language mastery”. In such an environment, the primary learning outcomes are acquisition of content knowledge as well as language skills, and while the content of project work varies, it is the project’s content above all else that drives the process to completion. While driving components of projects differ depending on classroom context, a sequence of events is always applied in project-work which is authentic (Blumenfeld et al., 1991; Moss, & Van Duzer, 1998; Thomas, 2000; Stoller 2002; Thomas, 2017). “A project should reflect the interests and concerns of the learners.” (Moss, & Van Duzer, 1998, p. 2). In other words, the project should be *situated* as described by Gee (2004): “...if any variety of language is to be learned and used, it has to be situated. That is, it has to be brought down to concrete exemplifications in experiences learners have had” (p. 106).

Motivation

Previous classroom observations (Beckett, 1999; Wilhelm, 1999) have suggested that without proper scaffolding and explicit explanation of course goals, students engaging in project-based language learning may experience lower motivation or dissatisfaction. This is particularly likely when students are accustomed to language-centered

instruction, exemplified by the following observation: “One reason that may account for some students’ dissatisfaction is that an ESL class is for learning language components, such as vocabulary, grammar, speaking, and writing, rather than for building skills in such areas as research and cooperative work” (Slater and Beckett, 2006, p. 109).

Therefore, explicit explanation of curriculum goals is a necessary step in increasing the students understanding of how non-linguistic tasks are meant to facilitate language learning. More specifically, Wilhelm suggests five areas of support aimed at reducing student anxiety during project work, as follows; *developing trust and interpersonal relationships; explaining and demonstrating student and teacher roles and responsibilities; modelling the collaborative learning approach; nurturing participant feedback, reflection and peer negotiation; and utilizing well-balanced, appropriate grading systems* (see Wilhelm, 1999).

Assessment

To promote authenticity, students may be involved in defining the parameters that lead to the completion of the project through formal and informal assessment of the students’ needs. Like other parameters of project-work, there are many examples of students taking on the role of defining what assessment tools will be used (see Moss & Van Duzer, 1998).

Various means of assessment can be employed in project-based learning settings. Apart from a completed project on display, reflection is often used, not only as a means of assessing student performance, but also to assess the overall effectiveness of the project or course in aiding student language acquisition (see Beckett & Slater, 2005). Self-assessment allows students to understand teacher expectations as well as to provide a window into student perceptions of their participation in project work (e.g. Wilhelm, 1999; Beckett, 2002). Stoller (2006) recognizes “student reflection on both process and product” (p. 25) as a concluding element of project-based learning in L2 classrooms.

III. DESCRIPTION OF THE DIGITAL CONTENT CREATION PROJECT

The purpose of this pilot was to establish whether a project-based language teaching approach would be appropriate to support curriculum goals for English language education in Japan and furthermore to identify factors which contribute to or hinder the success of a project-based approach in this context.

The class which participated in this pilot consisted of 40 students with two students dropping out during the course. Most of these students came from Vietnam (36), two come from Thailand, one from China, and one from Mongolia. These first-year students currently take required English classes as a cohort separate from domestic students, while non-English language courses are mixed. The reason for this is a perceived disparity in communicative ability between the two groups with many international attendees possessing communicative competency at or beyond much of the content in use for current required English courses (English textbooks teach up to CEFR level B-1). Previously, bridging the gap between competency levels of domestic and international students in one classroom led to complications communicative tasks, where English instructors had noticed raised anxiety levels amongst lower level students in the class.

The goal for the Digital Content Creation Course was to learn English specifically for creating and sharing digital content. Projects completed in this course were classified as *production-project* (see Stoller, 2002) in that the primary means of conveying information is through audio and video presentation, although as will become evident, these projects often included performance elements integral to the task-sequence.

Eight groups completed projects during the semester, and with minimal guidance students were given freedom to form their own groups; the intention was to encourage social interaction. Ideally, groups were intended to be kept to a maximum of four students per group as this was perceived to be optimal for the assignment of roles throughout the task sequence.

Focus on process was the overriding principle of the course. Although it was not specifically required, groups were expected to encounter a series of tasks resembling the following order; forming groups; choosing desired project type; assigning roles; writing a script; practicing/rehearsing, recording, editing and mixing, uploading/sharing; and assessment; with individual reflection taking place throughout this sequence.

Completing tasks required students to increase their technical knowledge which often required the understanding and use of terminology specific to content creation. Scaffolding included a focus on technical terminology, tutorials for recording, editing, and mixing as well as sampling authentic material. Throughout the opening four weeks (excluding the first week), students were given weekly lists of terminology, intended to aid descriptions of their group's process during reflection. These terms were categorized by the likelihood of when they were expected to be relevant in the task-sequence. These were distributed at a time deemed appropriate by the instructor. By this means, it was hoped students would have access to terminology when specifically needed to describe a certain task. For example, since it was inevitable that groups would record themselves before editing, terminology specific to recording was introduced before terminology specific to editing.

Instruction on how to use relevant hardware and software was frontloaded over the course of the semester. The class was given opportunities to sample various types of content, including podcasts, songs, narrated stories, vlogs, and other streamed content. During this time, groups were expected to be moving from the initiation stage of the first project (each group completed two projects) to planning the sequence of events that would take the project to its completion. The class received a lecture and workshop on recording procedure where students became familiar with techniques for improving recording quality. As groups began work on their projects, they had access to secondary rooms where recording tasks could be carried out during class. During class hours, a "resource corner"

was set-up where up to four students in isolation could simultaneously access an online material such as tutorials, listen to a project together, or access the internet via headphones. Outside of class, the instructor made the necessary recording equipment available by appointment.

When necessary, each group was expected use a computer outside of class as well as in class on specified days. Students were encouraged (though not required) to use Audacity sound editing and mixing software, which is downloadable for free, requires relatively light computer system requirements when compared with other audio editing software, and has functionality that can be learned relatively quickly when compared to industry standard digital audio workstation (DAW) software. Before embarking on production related tasks, the class participated in a workshop session on using Audacity, familiarizing themselves with necessary functions.

By giving groups several differing project type options, it was hoped that preference for one type or another would improve student motivation, allowing students to choose a project that was relatable to their interest. Groups were encouraged to pursue audio-projects, such as podcasts, songs, or narrated stories, but were in no way restrained from pursuing video projects. The intention behind this was that a focus on audio content maintain an emphasis on linguistic aspects of the completed product. Furthermore, the emphasis toward audio related projects reflected the available equipment. Nevertheless, throughout the course, project parameters were refined to allow students to pursue their own concepts that did not necessarily fit any the project types originally suggested by the instructor. This often meant that groups were incorporating video elements into their plans.

A minor short-length project assignment was given before more substantial projects were assigned. This was intended to give groups a sense of process and to gain experience using software and equipment. Afterwards, the groups completed two more substantial projects in sequence during the semester. Groups who chose to do a podcast or

story were given a target of ten minutes length for each project in its final form. Apart from speaking, groups were instructed to use other sources of audio, such as background music and sound effects, to augment their finished product. This requirement was intended to emphasize the importance of the editing and mixing tasks within the project; this task is inherently more prominent in song production due to overdubbing tendencies. Songs were expected to be shorter, and these groups were given a target of up to five minutes. Project themes were allowed to be originally conceived and scripted (podcast or story) or arranged (song) by the group, or conversely, in the case of songs or stories, groups were allowed to remake or cover existing material. Podcasts were expected to be performed semi-structured with students relying on notes only during recording. Regardless of the type of project, each member was expected to contribute roughly equally in terms of speaking time during the recording task.

Reflection

During their work on the final project, each student was expected to write a journal reflecting on their group's experience. The journal was to include an entry for each time the group met, inside or outside of class, or any other time the student was working on a task related to the project. The journal was worth half of the total grade for the project, and each student was asked to keep his or her own individual journal entry. The students were expected to write an entry, reflecting on the experience each time their group worked on the project. Since the class met four times during the span of the concluding project, a minimum of four journal entries was expected from each student.

For their final projects, four groups submitted podcast projects and four groups submitted song projects. For further reflection, each student completed a short questionnaire comprising six items; two check-answer items and four open-ended items. A space was also provided for additional comments. The open-ended responses were categorized to find trends in student perceptions. The questionnaire was designed for the instructor to gain feedback about the student experience and potential improvements



During a planning session early in the semester.



A podcast project group during recording.

for future iterations of the course. A total of 36 questionnaires were collected on the final day of the class.

IV. RESULTS OF QUESTIONNAIRES

Neither of the check answer items, item 1 (*What was the most difficult aspect of this course?*) or item 2 (*What was the most enjoyable aspect of this course?*) elicited a majority response. 33% percent of respondents indicated that scheduling conflicts

presented the most difficult aspect of the course, while 44% of respondents found creative freedom to be the most enjoyable aspect. The following charts below show results for item 1 and item 2.

Responses for item 3A (*Which audio or video editing software have you used for this course?*) indicate that most students (77.8%) used Audacity during the course. Item 3B (*Which audio or video editing software have you used for other purposes?*) indicates that over half of the students (55.4%) had no prior experience with audio or video editing software.

1. What was the most difficult aspect of this course?

36 responses

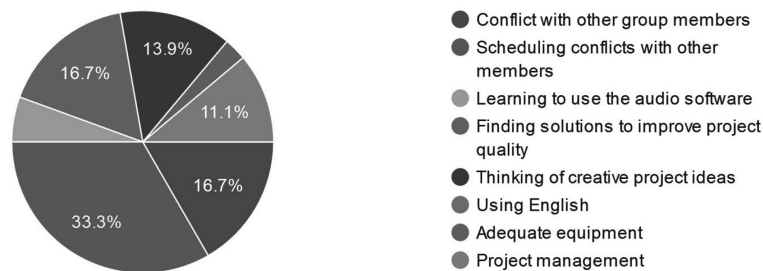


Chart 1

2. What was the most enjoyable aspect of the course?

36 responses

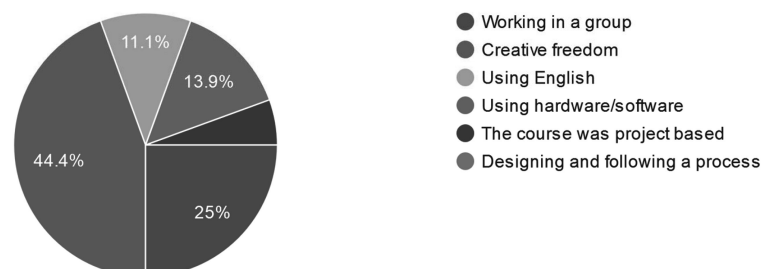


Chart 2

The following charts are visual representations of item 3A and 3B responses.

Item 4 (*Was there something that negatively affected your (your group's) performance?*) responses were classified as difficulties the groups encountered during the project task sequence; *lack of free time outside of the classroom* (11 responses: 30.9%); *lack of experience in audio-production* (nine responses: 27.8%); *issues with teamwork, group tensions* (nine responses: 25%); *lack of experience in technology* (eight responses: 22.2%); and *lack of free-time outside of the classroom* (seven responses: 19.4%). The most often

occurring responses in item 5 (*If you took a project-based course in the future, would you do anything differently?*) could be classified as *Try something new (different project, new software, new instrument)*. This category accounted for 16 responses (44.4%). Responses categorized as *Improve time management and planning (making a schedule, etc.)* represented 11 responses (30.6%) and *Learn more about software and audio equipment* represented 10 responses (27.8%). Below is an interpretation of item 4 and item 5 in chart 5 and chart 6 respectively.

3A. Which audio or video editing software have you used for this course?

36 responses

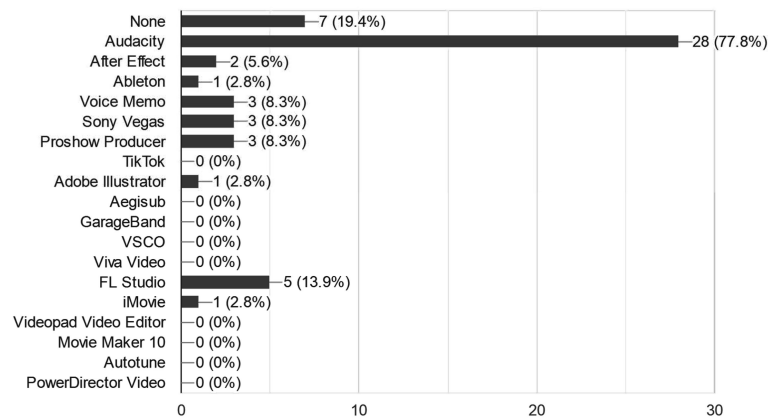


Chart 3

3B. Which audio or video editing software have you used for other purposes?

36 responses

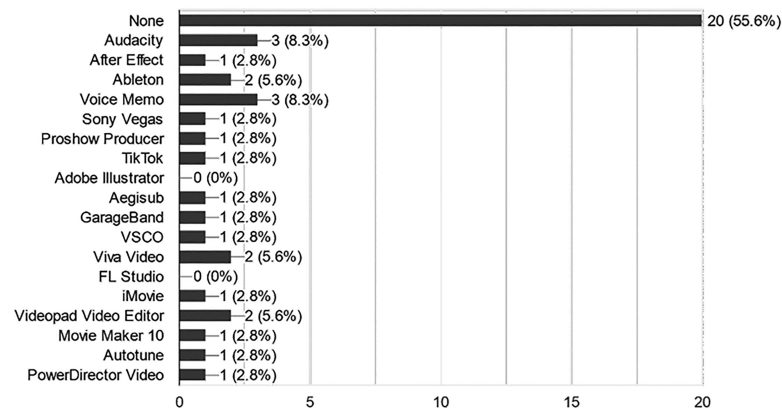


Chart 4

4. Was there something that negatively affected your (or your group's) performance?

36 responses

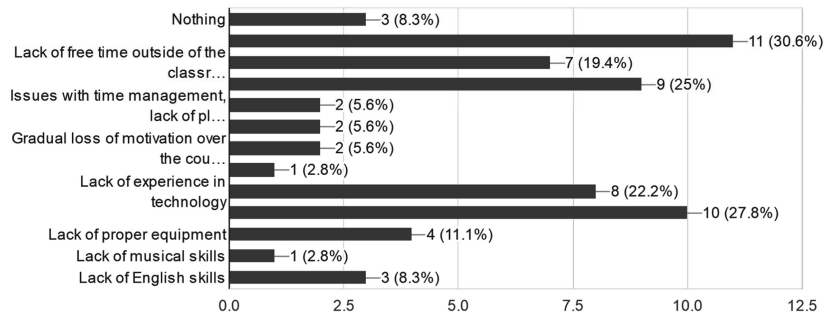


Chart 5

5. If you took a project-based course in the future, would you do anything differently?

36 responses

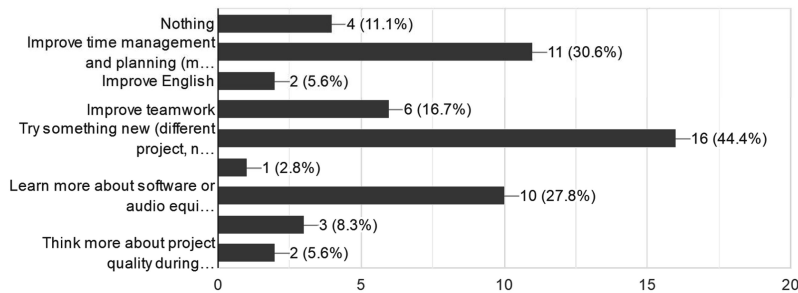


Chart 6

V. ANALYSIS

Questionnaire Responses

While most of the questionnaire items did not generate majority answers by themselves, when looking at all items as well as journal entries, some trends emerged. Overall, students expressed enjoyment in doing project work. Although the questionnaire does not specifically ask whether the students looked favorably or not on doing projects, 15 students directly commented that they found the project enjoyable. The most common theme from the student responses was that their group project was a new experience, as suggested in the questionnaire by the following comments:

I had a chance to try making a lot of new things, especially making videos.

I can learn more other things related to English, not just things we learned from the book.

I think the project-based class provide[s] a different experience to the normal class at school.

So this is one of the [classes] that I enjoy the most. The reason is this is where I learn new things that relate to music and editing.

I can learn some new words and some [tips] to record. It was my first time I did the record.

Thank you a lot for deciding to... teach us something quite brand new (at least for me).

For some respondents, the projects offered excitement, with one commenting, "Doing the project is more exciting than study[ing] grammar..." and another, "Hope that this kind of course... can be

continued in the future. I think that this idea (about the projects) is so interesting.”

Working in groups proved to be a positive aspect of the project. In response to item 2, eight respondents cited *working in a group* as the most enjoyable aspect of the course. This is further supported by several quotes from open-ended responses in the questionnaire:

I have become more confident (just a little bit) and known how to work with other ones as [a] team more effectively.

I think working in groups is a good idea because it help[s] me [make friends] and [socialize] with other people.

We had fun when working creatively as a group.

Despite the generally positive outlook toward working in groups, some expressed tensions. In item 1, six students (16.7%) selected *conflict with group members* as the most difficult aspect of the course. Nine students gave responses indicating *issues with teamwork, group tensions* in item 4. For example, one respondent stated, “...there is a member I don’t really get along with but I can’t really tell her to just leave the group so there were tensions sometimes when we discussed about the project”. A respondent from another group stated, “...despite our effort to make the project better, he (another member) seems not very into it”. Likewise, item 5 produced a further six responses indicating a need to *improve teamwork* in potential future projects.

A major obstacle to the groups’ success was scheduling outside of the classroom. over half of the respondents indicated on at least one item that scheduling conflicts outside of the classroom hindered their progress. For item 1, 12 students (33.3%) circled *scheduling conflicts with other members*. Item 4 produced a further 18 responses indicating issues for groups meeting outside of class to work on projects. These were classified as *problem with scheduling or meeting other members* (11 responses: 30.6%), or a *lack of free time outside of the classroom* (seven responses: 19.4). Item 5, (*If you took a project-based course in the future, would you do anything differently?*), produced

11 (30.6%) responses classified as *Improve time management and planning (making a schedule, etc.)*. More than interference from other classes, students held the belief that their part-time job schedules were the biggest obstacle for out-of-class group meetings as illustrated by the following respondent quotes:

Part-time job[s] take a lot of time for us.

Each member has a different part-time job schedule so we had difficulty in meeting other members.

Part-time job[s] take us a lot of time and energy so I don’t have much times to met and discuss together.

I think part-jobs make negatively affected our group’s performance.

In her journal, one student remarked in reference to her group’s “song project” that “I was too busy with part time job so I became too lazy to practice Ukulele and care about the project.”

Although scheduling proved to be the most common difficulty encountered by the groups, a lack of experience with audio-production and technology in general were regularly occurring responses for the questionnaire items 4 and 5. For example, item 4, produced ten responses indicating *a lack of experience in audio production* and eight responses indicating *a lack of experience in technology*. There were ten responses from item 5 indicating *learn more about using software or audio equipment* if given the chance to do similar projects in the future. The following journal excerpt illustrates the kind of problems groups faced with new software:

I had problem with exporting the drum recording from drum apps so I took a lot of time for finding the remedy. However, there were no effect on the recording. Therefore, I went to school and found a quiet room for recording again.

The novelty for many students of using editing software is further demonstrated by responses to item 3 that

indicate a lack of experience, especially with the audio editing software, Audacity. While 28 students reported using Audacity for their projects, only three had previous experience with the software. 20 respondents indicated no prior experience with editing software. Furthermore, there were only five responses indicating previous use of other audio editing software, while 12 respondents had previously used video editing software, implying an overall lack of experience with these types of software.

Instructor Observations

The instructor observed at times group members were complacent due to having to wait for another member to finish a task that was assigned specifically to them. In some cases, task completion was delayed due to the absence of a member. One student from a six-member group commented, "We have six members in group and maybe this led to many problems like scheduling conflict or when somebody was seemed to be too busy to complete their own part". Another stated: "There was one member who [was always] absent for group's discussion". To alleviate this, the instructor intends to set stricter deadlines for specific elements of future projects, so students understand their responsibility in fulfilling each step of the process efficiently.

As stated previously, students were given freedom to form their own groups, with sizes ranging from three to six students per group. The four non-Vietnamese students in the class initially joined separate groups. This was intended to encourage the use of English in favor of the students' L1 by creating a heavier reliance on using English as a medium for group communication. Despite this effort, there was a limit to the policy's effectiveness. The instructor perceived that most groups often relied on their L1 for planning and communicating ideas. Similarly, one student commented in the questionnaire: "I think this project is a great idea but personally, I would like more opportunities to use English in classes, because even if the project is in English, we still communicate mainly in Vietnamese." Ultimately, the ratio of native Vietnamese speakers to other L1s was such that a large portion of group interaction was carried out in that language.

VI. DISCUSSION

Emphasis on Creative Freedom

Many students from the pilot course found digital content projects to be interesting, and at the same time, many emphasized creative freedom as a positive factor in their enjoyment of the course. The fact that projects are perceived to positively affect motivation is not new. In this case, it seems that for some students, what makes doing project-work with digital content is that it allows for creativity. Item 2 of the questionnaire, although not producing a majority, was particularly revealing. Similar examples of project work have yielded this response from students as well (see Hafner & Miller, 2009; Zhao & Beckett, 2014). Although not definitive, the responses from this pilot suggest that current language-centered methodologies promoted by the institution do not sufficiently encourage student creativity, highlighting a potentially demotivating feature of the English language program.

Groupwork

Allowing students to choose which classmates they worked with led to several groups with five or six members. Ultimately, these were too large to assign adequate roles for all members. When forming groups, typically, students would strive to include their peers, resulting in over-sized groups. For future projects, three to four member groups are suggested to avoid complacency and reliance on other group members. Furthermore, smaller group sizes should ease difficulty with scheduling group meetings outside of class time, which was a common problem experienced by all the groups. The instructor must strike a balance between autonomy to choose groups freely and appropriate group size. Managing group size is especially important for groupwork outside of class where project time is competing with other commitments, both academic and non-academic.

Some groups struggled to conceptualize the sequence of tasks necessary for completing their projects or needed to familiarize themselves with types of digital content. One journal entry explained, "at first we were kind of confused because the concept of podcast was not quite well-known in

Vietnam". Maintaining an approach of not over-defining the task-sequence (see Blumenfeld et al., 1991; Thomas, 2017), a logical order was suggested but not required. Especially groups doing song projects were faced for the first time with processes such as overdub recording techniques or recognized editing and mixing practices. To those familiar with audio-production, the notion of overdubbing instruments and vocals over a "guide track" is a well-known technique. It should be expected that first users of audio editing software will neglect to employ such a technique. Therefore, groups unfamiliar with the recording process struggled to identify a satisfactory sub-sequence of procedures within the larger recording task. However, at times groups arrived at novel if unconventional solutions to encountered problems as the following journal entries demonstrate:

I also use smartphone for recording vocals. One was used for recording, and another one was used for listening the beat. We sang together the first part and the last part, second part with whistle was done by [another member] and having solo part of me.

After practicing on guitar, I realized that I have not enough time to play on the Piano. I contact Duy and he find a suitable solution. About my piano's part, after recording my guitar's part, [another member] will edit the guitar sound and change it into piano sound.

Using new technology in the classroom can present non-linguistic challenges (see Hepworth and Wema, 2006). In this case students were coming to grips with editing software and specialized recording equipment for the first time. Although students received instruction on relevant tech, adequate time for application practice is suggested for the future.

Reflection

It was the case that student reflections tended to mirror those of other group members in that there was often overlap in content. This is an indication that students did not perceive enough differentiation

in their roles within their groups and likely relied on each other to reduce the writing load. In order to make future reflection more of an individual assignment, two points of emphasis should be met; (1) a stronger focus on individualization of roles for group members; and (2) tighter restriction upfront of the reflection guidelines. By pushing groups to create individualized roles for their members integral to the project, the intention is to give students a stronger sense of purpose within the sequence of tasks within the project work. By restricting the guidelines for writing reflections, students can be given a more personalized task. For example, students need to be pushed to put stronger emphasis on their own role within the group. In so doing, it is intended that students will personalize their journals as well as take increased ownership of their group's success.

For future iterations of a project-based class, reflective writing can serve as an opportunity to advance the student's knowledge of technical vocabulary. Considering the potential for incorporating the four-strands principle (see Nation, 2007) into a project-based sequence of tasks, reflection writing can lend itself to fulfilling the strand of *meaning focused output* (see Nation & Yamamoto, 2012). Depending on the goal of the course, careful adaptation of a project-dairy such as the one proposed by Beckett & Slater (2005) provides the opportunity for using both high-frequency and technical vocabulary.

VI. CONCLUSION

Although the pilot course was the instructor's first true experience with project-based instruction, the course has revealed some important features of the approach in practice. Firstly, digital content creation using a project-based approach offers a highly engaging experience for students. Evident from student feedback, many are using English creatively in the language classroom for the first time. This setting, allowing for expression and imagination, lets students bridge the gap between study and real-world application. Now that they have been given the opportunity, these students are aware that creating

digital content in English is not beyond their ability, and that there are opportunities to use it outside of the classroom.

Also, students in the pilot were exposed to long-term groupwork for the first time in an English classroom setting. Many of these observed for themselves that they lacked familiarity with teamwork, underlining another value of the course. Some encountered confrontations, some strove to find their strengths within the group, and others had scheduling conflicts to work around. During the course, they and the instructor had the opportunity to recognize this absence of experience. In this case, it is up to the instructor to clearly convey well-defined learning outcomes, manage group dynamics, and provide learning opportunities that involve the application of language and techniques necessary for each task.

VIII. 参考文献

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