

A HEUTAGOGICAL APPROACH FACILITATE COLLABORATIVE LEARNING THROUGH DIGITAL VIDEO PROJECT IN SECONDARY SCHOOL

Lim S.H.^{1*}, Tay C.C.², Hanipah H.³, Pang Y. J.⁴

^{1,4}) Institute of Technology Management & Entrepreneurship, Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia

²) Faculty of Electrical Engineering, Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia

³) Centre for Languages and Human Development, Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia

*Corresponding e-mail: limsehoe@gmail.com

Keywords: Project-based collaborative learning; heutagogy; digital video production

ABSTRACT – *The integrating technology upon heutagogy in project-based learning(PBL) to foster meaningful collaborative learning. This paper reports on the implementation digital video project of a Chinese Language class at an secondary school in Melaka. The project combined elements of heutagogy approach and project-based learning to produce a strong autonomy focus in collaboration. This study aims to encourage the digital video as a tool that allows students' learning to meet the needs and requirements of 21st century skills by making students collaboration in secondary school Chinese Language class. The study builds on the PBL model that places the focus of collaboration with students. The data were collected through a questionnaire for 63 respondents. The results show significant positive results in terms of collaborative learning through digital video production with Chinese Language as a medium of interacting communication and collaboration with peer. A new technology and face book were integrated into the project process in order to create a technologically rich learning environment. In particular, we describe the potential of the digital video project to provide students with opportunities to exercise their competency as autonomous students within a structured language learning context. These findings have been student-generated video digital to be beneficial in collaborative learning on PBL, which is important in preparing students do an ever-changing 21st century. The technique of digital video can be used effectively setting to learn writing and self-determined in the content of writing.*

1. INTRODUCTION

Global competition is forcing the secondary school to excel in knowledge-creation that are significant and innovative. However secondary education is traditionally model upon a teacher-centered delivery of instruction to classes of students who are the receivers of information. The new generation to have begun to diverge their learning need, leading to a correspondingly rapid rebirth in learning. The potential for transforming the traditional learning environment into a context of heutagogical approach by digital video project. This curriculum will still stress student-centered but have a greater emphasis on PBL.(Malaysia Education Blueprint, 2013) It may have played a vital role in bringing about heutagogical learning environment that is a student-directed and collaborative learning guide by teacher as facilitator. Students were empowering as video content producers and learning context generators.

Most teacher belongs to the baby boomer or generation x cohorts, while secondary students belong to the millennial generation. Millennial students have divergent perspectives on their learning needs with their teachers. These learning differences may contribute to intergenerational encounter. In order to be successful education, it is important to provide self-determined approach of learning to the needs of the students. The term self-determined is a relatively name for heutagogy, commonly referred to as heutagogy is describe self-learning, independent of formal teaching which appears to suit the millennial students. Discovery and reflection will fill the gap of their formal learning as student do immensely valuable work

for themselves. Secondary students have shorter attention span and prefer interactive and collaborative learning. The change in the attribute and needs of the students forces the educational system to acclimate to the students.

Thus “transmission pedagogy” has prepared high-achieving students for increasingly complex life and workplace in the future. In the new global economy, PBL has become a central issue for attempted to model the process of moving from pedagogy to andragogy and towards heutagogy using digital video project focusing upon student-generated learning contexts. PBL increased students’ motivation by organizing their own learning in solving real-world problems.

Heutagogy as a pedagogical framework moves the focus from ‘learning the content’ to ‘learning to learn’. In his major study, Natayan identifies heutagogical approach has also been successfully implemented and evaluated in multiple undergraduate courses.(Narayan & Herrington, 2014).Heutagogy built capabilities to develop new ideas and ability to work with a variety of technologies(Dole et al., 2016). Furthermore, a study to realize how effective collaborative groups formed in a course specified that PBL promoted small collaborative learning groups effective in the digital environment.(Kimura, 2016) Video can be part of immersive simulation environments; can be embedded in a more complex virtual learning environment with text, pictures, graphics, and so on.(Pirhonen & Rasi, 2017).

Some researchers have begun to explore the potential of digital storytelling projects, as a pedagogical tool to establish an open dialogue, create compassion, and sustaining student engagement within a community of student. [5] Thus, digital video as a catalyst to enable change along the pedagogy to heutagogy continuum by focusing upon student-generated contexts. In such projects, students work either individually or in groups to design and construct a short, movie-like digital production, known as a digital video production. We begin by reviewing important concepts in collaboration in learning especially as these relate to new technologies.

This study was to investigate the impact of interdisciplinary secondary students with generated digital video in the Chinese Language. Moreover, the study was applied heutagogy to develop collaborative working skill and technology integration practices in PBL environment. Figure 1 showed the study assesses Wolff’s design features for creating an optimal collaborative PBL environment.

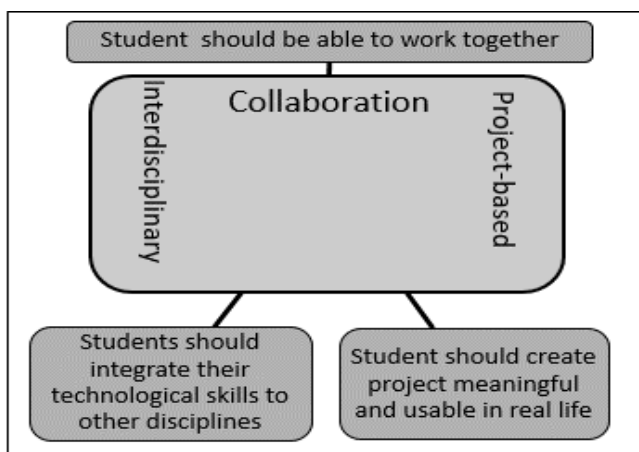


Figure 1 Adapted from Derya Baser at.el.(2017) Collaborative project-based learning: an integrative science and technological education project (Baser, Ozden, & Karaarslan, 2017)

Student self-determined practice of interdisciplinary in the digital environment through project-based collaborative learning. This digital world is characterized by real-time sharing and collaboration, enabled by today’s powerful mobile smartphones. Collaborative learning is a major area of interest within the field

of the students worked together in group to crop their videos. During this moment, students pursue and give help, and assign the planning and the editing of the story together. At the same time, they build team skills. Learner- driven knowledge creation, collaboration and digital literacy had effect on student learning outcomes when students self-assessed their own learning after the project. What we know about digital stories is largely based upon empirical studies that investigate how the students' descriptions of their work with digital stories. The digital storytelling activities are motivating and fun, they also need commitment and hard work in order to achieve the learning objectives.

Finally, we evaluate the ways in which the students learning was allowed to take control in the technological environment. Whereas PBL is a pedagogy strategy utilizing the same kind of media and technological environments that students are engaged with outside of the classroom.

2. METHODOLOGY

This study facilitated the investigation of a user self-generated video using a device, such as a smartphone, laptop. The objective of PBL was to support students self-determined learning and impact their collaborative learning. A study was conducted to identify the processes involved when applying the PBL approach according to the learning theme. There were 63 secondary students who participated in this research. The respondents were given 4 weeks to plan and organize the digital video project. Six learning stages were designed to guide students through the project process which showed in Figure 2.

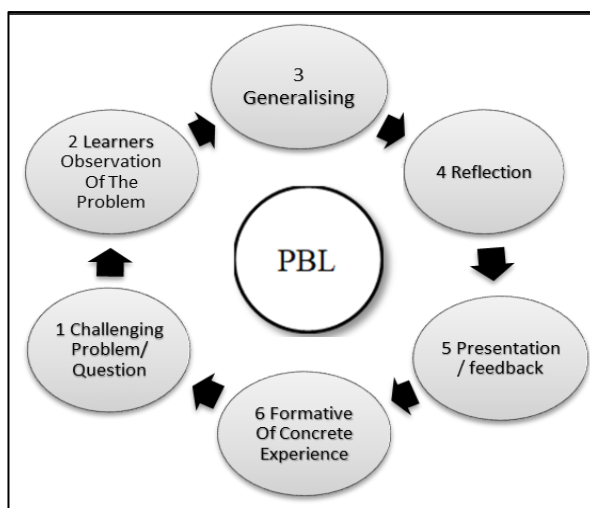


Figure 2 Six learning stages in project-based learning

Students digital video activities mainly take place at home where small groups of 3-4 students meet and build up stories together. The students did not have real experiences with editing video or remixing music or creating a video story. Once the digital video is filmed, all the video was uploaded in face book and the students present their work to peers and the teacher. They also provided research material. This study was conducted to collect quantitative data. A researcher has developed a five-point Likert-scale questionnaire to identify students' viewpoint of the PBL that support students' collaborative learning of the competencies. The categories were identified from the students' collaborative learning, include complete task together; incorporate feedback, set goal and plan., create join product, and presentation group work. The question covered several features of collaboration learning as they were

presented in the framework of PBL. The questionnaire used by Hixson et al. (Achievement, n.d.) was modified based on students' competencies in this study. The collected data were coded and exported to SPSS 23.0 for statistical analysis. The PBL survey instrument is the primary source of data collection.

3. RESULT AND DISCUSSION

The students created over 16 videos altogether. Most of them were between 3 and 5 minutes in length. Students had freedom to choose how they wanted to create video story in their learning. The data analysis of the questionnaire suggests that student-generated digital video on PBL in collaborative skill, we found that they made a significant impact in collaborative learning. We found that heutagogy on project-based learning model proposed in this research had significant positive impact on the students' collaborative learning. The study data in this investigate is drawn from five main source, such as complete ask together, incorporate feedback, set goal and plan, create join product, and presentation group work.

Figure 3 showed the percentage of each heutagogy on the collaborative learning questionnaire item. It can be seen the almost all the percentage are very high (more than 92%) except for item 3, 84%, it is a common element for them to work with classmate to set a goal and make the decision to create a plan for their teamwork.

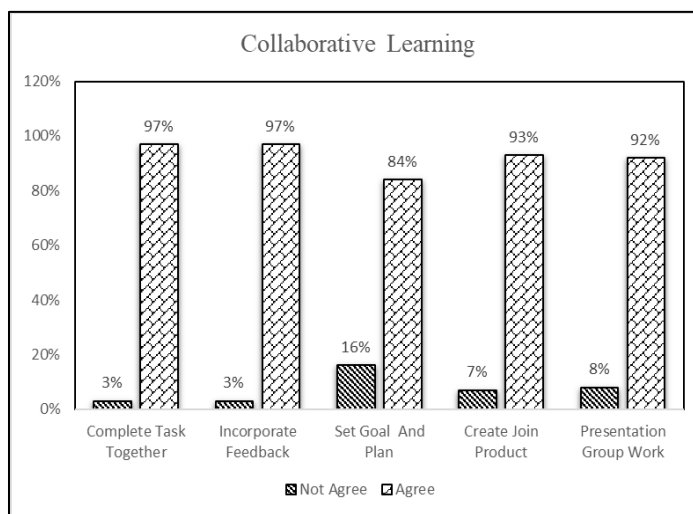


Figure 3 Collaborative skills on Project-based learning in secondary student

Based on report, we found 97% students agree they complete task together. They pay a lot attention to collaborative aspects of collaborative learning. When collaborating on group assignments to complete their own tasks, they effort to try to contribute, even some peers contributes less. They were satisfied peer individual contributions. The brighter peers did most of the work will help low-contributing students. 97% students reflect they incorporate feedback in group discussion. They accepting opposing viewpoints and giving elaborate their explanations. They were also providing and receiving help with each other. Students aimed to achieve individual academic learning but not neglected the importance of social interaction.

84% students mention when they started to work in group by set goal and plan may experience to the effectiveness of collaborative learning. They were coordinate their group activities affectively, within planning a project of actions for group members to finish in time and to support each other's progress.

93% students stated that they know how to collaborate effectively by create join product. They were shared idea and feel safe to share with each other to express their thinking. They synthesizing relevant material and create a new and effective report or product. They were share their opinions, while others defensively argue for their idea. 92% students indicated they have experience collaborative in presentation group work, especially they worked in their favorites groups where they can know each other well.

They can create joint peer's product and agree presentation may have been caused by heutagogy facilitate collaboration in team work. This implies that such project-based learning would affected students' work in groups to make decision from feedback to complete their product or task together, Within the study, collaborative learning had a mean of 3.8 with a standard deviation of 0.66961. The result now provides evidence to conclude that heutagogical approach facilitates student project-based collaborative learning in generating digital video project is a successful learning approach. This findings of research is clear showing that the interpersonal and the team skills may help group interaction and collaborative learning. When the group goal was to accomplish group tasks and to get a high grade for the group product, less capable students were often motivated during collaborative learning.

Heutagogy is an important component in the 21st century education system, and plays a key role in PBL. This generating digital video experience had an impact on project-based content collaborative learning. It is a useful way to consider the effective use of environments and tools. With PBL, the inside or outside of the classroom becomes the place to share, discuss and explore learning materials. Group members may be urged to strengthen social interaction and mutual help in order for everyone to benefit from collaboration

A 21st century education system needs students who work collaboratively to design effective and innovative learning project, and digital technologies are the key to making that work in heutagogy. As a consequence, low-status students may feel confident to participate themselves in collaborative work, thereby benefiting from the collaboration. However, learners need to be able to negotiate how, when, where and to what upper (rather than minimal) level they want to take their learning (Halsall, Powell, & Snowden, 2016). The key to successful learning is adopting a spirit of openness by all parties involved in the learning process. For educators to be creative in their pedagogy, encouraging learners to utilize their learning spaces to negotiate how, what and when they learn. Digital technologies have the biggest impact on teaching and learning when they combine formal and informal learning structures and result in improvements in, and supplements to learning. Learning has also been reinvented and new paradigms created when these technologies are used in partnership with new providers. Learning in such environments is more relevant, engaging and motivating.

4. CONCLUSION

The Malaysian educational system is currently undergoing transformation, one of the emphasis of which is to create a generation who can communicate, collaborate, think creatively, innovatively and critically(Devkota, 2017). Then we describe the implementation of a collaborative student digital video project as part of a curriculum secondary school for Chinese Language. This project intended to encourage from the previous student-directed pedagogy to a more heutagogical approach where the emphasis moved to student production and collaboration.(Helen Caldwell, 2018) The students have learned from each other, feel proud for producing digital video , and their friendships get strengthened.(Vivitsou, Niemi, Wei, Kallunki, & Miao, n.d.) Digital video project could contribute and augment the producer culture in schools, as it would open up opportunities for students to generate new digital storytelling genres for language learning. If this finding of this study are confirmed in other studies, these will have practical implications for implementing collaborative learning as well as training students in heutagogy approach

and collaborative learning practice. Connected with collaboration is the ability to determine their own learning needs and to reflect continuously on the learning process. Collaborative tasks in digital storytelling increase student engagement. This involves developing skills of open communication and teamwork, being flexible in PBL, and becoming confident in students' ability to take appropriate and effective action in the new learning situation. In this perspective, collaboration and working together in group work purposes to both ease task complexity and keep the space for students to think deeper. When future efforts in student training and education are aimed at enhancing prospective teacher and students' understanding of effective collaborative learning and the contribution to the obstacles, both teachers' and students' experiences during collaborative learning may improve significantly. This study contributes to the understanding how PBL should be implemented in the classrooms to encourage students to pursue STEAM majors at the high level. Heutagogy approach stimulates the development of the students' soft skills, by exposing them to a challenging environment.

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