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Towards an Integrated Framework: Use of Constructivist and Experiential Learning Approaches in ICT-Supported Language Learning

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This paper reports the findings of a research project that aimed to leverage the students' growing interest and experience in using technology to develop their language skills through the use of student-created digital video (SCDV) approach. SCDV is an ICT embedded learning method which engages students in collaborative experiential learning. The students are involved in a series of constructive activities which make room for creativity. Centered around Vygotsky's social constructivism and Kolb's experiential learning theories, the SCDV project was introduced in an undergraduate level English language course offered to Arabic speaking EFL students enrolled in Engineering programmes at a private university college in Oman.

The purpose of the study was to explore the lived experiences of students and their teachers through the project. Data collection methods included student questionnaire, student focus group interviews, and classroom observation. The results tended to confirm that despite the challenges faced by students in terms of increased workload and technical issues, the project resulted in the development of their English language and a range of other skills such as researching, critical thinking, autonomous learning and technical competence. In addition, students enjoyed working on the project, found the tasks relevant and considered it a welcome change as compared to their traditional classroom assignments.

The study provides a model for SCDV integration into the foreign language curriculum. The researcher concludes that SCDV projects encompass a number of advantages for students as well as tutors and therefore posit significant pedagogical implications for the EFL academia which need to be researched further.

Keywords: ICT; experiential learning; social constructivism; student-created digital video

1. Introduction

For long, tertiary education relied heavily on teacher-fronted, lecture based classrooms, however the last few decades have witnessed a paradigm shift in the process of teaching and learning with an increased call for student centered learning. This shift has led tutors to advocate learning as a process of self-structured knowledge construction. As a result, they have started looking for techniques that could augment learner motivation, engagement and autonomy. ICT is often viewed as a potentially powerful tool for engaging the learners. It has been responsible for restructuring educational milieus in general and TESOL in particular (Smith & Rilling, 2006). Many number of researchers have agreed that ICT holds great potential for language learning (Levy, 1997; Muyskens, 1997; Warschauer & Healey, 1998). Salomon and Gardner (1986) suggest that the impact of ICT on human mental capacities is very significant and it allows individuals to achieve the most difficult tasks as it affects both the knowledge and cognitive domain.

Present generation of students is digitally oriented and is experiencing the world through technology. Therefore, the students need to be engaged in tasks that integrate technology. At the same time they must learn how to organise ideas, analyse situations critically, solve problems and make relevant decisions (Greene, 2014). To accomplish this, integration of SCDV into the curriculum appears to be a considerably viable option.

This paper presents a part of a long term research project that focused on the design, application and assessment of an ICT-based pedagogical approach that concluded in student-created digital video (SCDV) commercials. The main focus of this paper is the discussion of the SCDV project with respect to

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two popular theories of education, Kolb's experiential learning(1984) and Vygotsky's social constructivism(1978).

1.1. Student Created Digital Video

Student Created Digital Video (SCDV) is an instance of the emerging dimensions of ICT that has been widely acclaimed by a number of researchers (Henderson et al., 2010; Kearney, Jones & Roberts, 2012; Hafner and Miller, 2011; Greene & Crespe, 2012; and Greene (2014). SCDV refers to a teaching and learning approach where students work together and create short digital stories or documentaries. In small groups, students are engaged in activities such as: researching, conceptualizing, recording, directing, scripting, rehearsing, performing, editing and other post-production activities. It engages students in authentic language learning, motivates them and helps bridge the gap between in-class and out-of-class literacy practices that eventually enhance learning. As a result educators have begun to explore the potential of SCDV as a pedagogical tool to engage learners. However, there is very little research evidence on the pedagogical aspects of SCDV integration in language teaching. Henderson et.al (2010) report that the "frequency of student-created digital video is not congruent with the assumed benefits" (p.12).

1.2. Kolb's theory of experiential learning and SCDV

According to David Kolb, "Learning is the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping experience and transforming it" (1984, p.41). He has characterized learning as a continuous process of knowledge creation which is grounded in experience. He further elaborates it as a holistic process of adaptation which involves transactions between the person and the environment, between social and personal knowledge, and ends in conflict resolution. The focus is on the process and not the outcome. A close examination of the steps involved in SCDV confirms that all the characteristics of learning proposed by Kolb are accommodated by SCDV where the learning experience is the focus and the process is more treasured than the outcome.

1.3. Vygotsky's social constructivism and SCDV

Social- constructivism originated from the educational theories of John Dewey and Piaget. Constructive paradigm hypothesizes that learning is an active, constructive process where the learner is a creator of knowledge rather than a passive receiver. Vygotsky's (1978) fundamental contribution to constructivism was the formal introduction of a social aspect to learning. Analysing the present foreign language teaching situation, the latest dimension added to constructivism is the use of ICT. The proposed SCDV project is undoubtedly an exemplary approach based on Vygotsky's socio-constructivist principles as it creates a learning environment which encourages learners to construct new knowledge collaboratively. The students can be exposed to varied perceptions through collaborative social negotiation using ICT tools.

2. Methodology

The SCDV project was introduced as a course requirement and was an assessed assignment with a 20% weighing in the English for Communication course offered in the second year (third semester) of an Engineering program at a private university college in Oman. Though this course has been using the same project for the past 6 semesters with some modifications, this paper reports findings from only two semesters, henceforth referred as phase 1 and phase 2. The first phase comprised 31 students (21 females and 10 males) and the second phase comprised 22 students (10 males and 12 females). During the first phase, the researcher herself taught the course while the second phase cohort was taught by another tutor. This allowed the feedback on the SCDV project to be gathered from another tutor's perspective.

The aim was first to orient students to the ethics of advertising and to develop language and other sub skills mentioned above. In groups of four, the students created short digital video commercials using hardware/software of their choice within a duration of seven weeks. Additional two weeks' time was given to compile the report. Each group prepared a short questionnaire to collect feedback on their videos from the audience after the oral presentation and video display. The report compiled the objective; the methodology used for video creation; learning experiences; challenges faced; analysis of the

questionnaire given to the audience; and conclusions drawn. During the presentation the students introduced themselves, detailed their methodology, their learning experiences, and the challenges faced. The audience included classmates, teachers and observers. The students' groups performed beyond expectations as most of them created excellent videos which confirmed improvement in language and other sub skills mentioned above.

Data collection methods for the SCDV project evaluation included a student survey, focus group interviews, the researcher's reflective journal entries, second study phase tutor's interview, and observers' comments. However, due to paucity of space, only the results gathered from the student survey are used here. In addition, only those sections of the survey which align with the scope of this paper are analysed. SPSS was used to get descriptive statistics such as percentages. For comparative analysis, cross tables were generated. A *z test* for the proportion (percentage) was performed to find out whether there is a significant difference between the results on student perspectives from the two different phases of the study. For most of the items, no significant difference was found between the two cohorts and therefore results of *z test* are not mentioned in the results.

3. Findings

The graphs below represent the students' perceptions on their learning experiences gathered through a survey questionnaire using five point Likert scale with the options including Strongly Disagree(SD), Disagree(D), Neutral(N), Agree(A) and Strongly Agree(SA). Most of the items received positive response from students. Most of the students agreed that the project motivated them to learn since it adopted a non- traditional active learning based approach, improved their English language and developed critical thinking, creativity, collaborative skills and decision- making abilities.

Figure 1

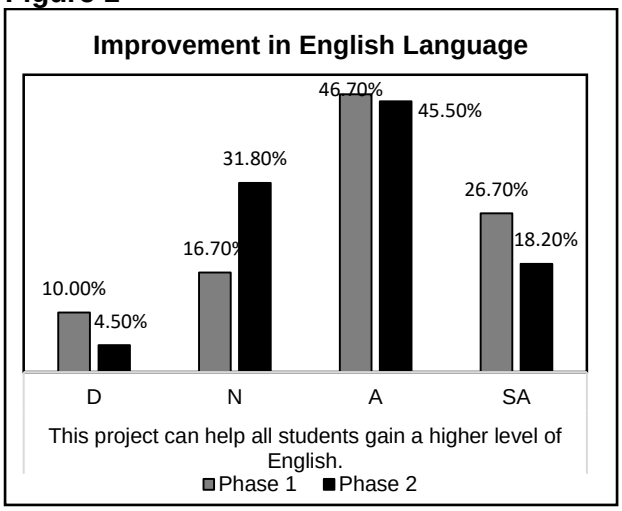
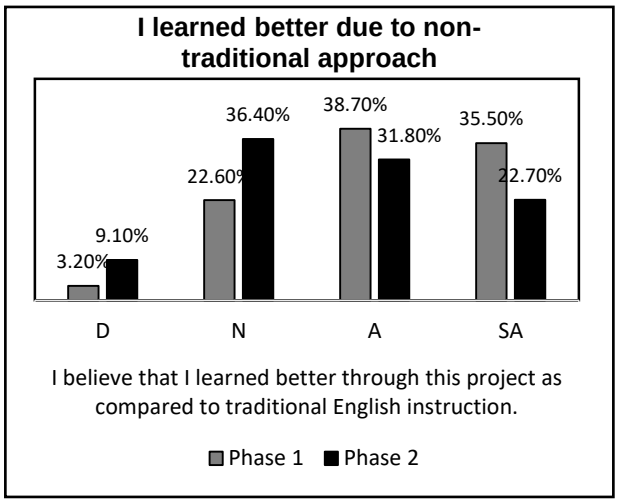


Figure 2



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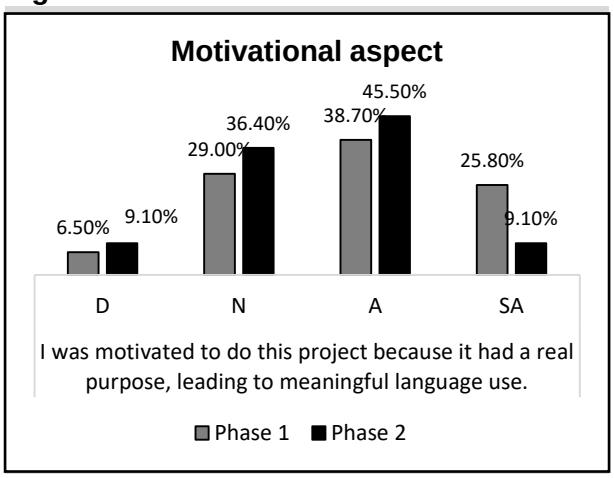

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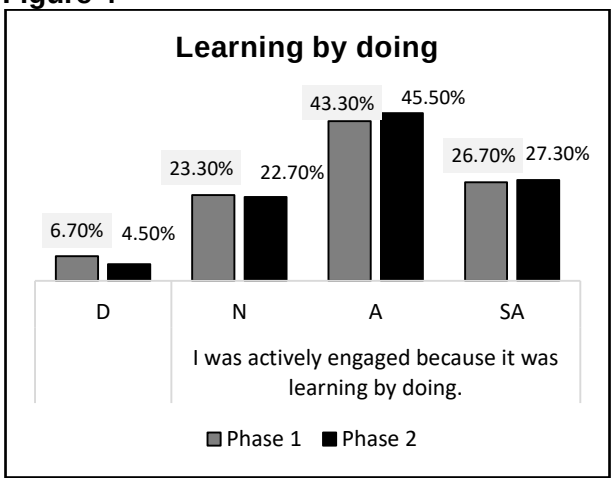

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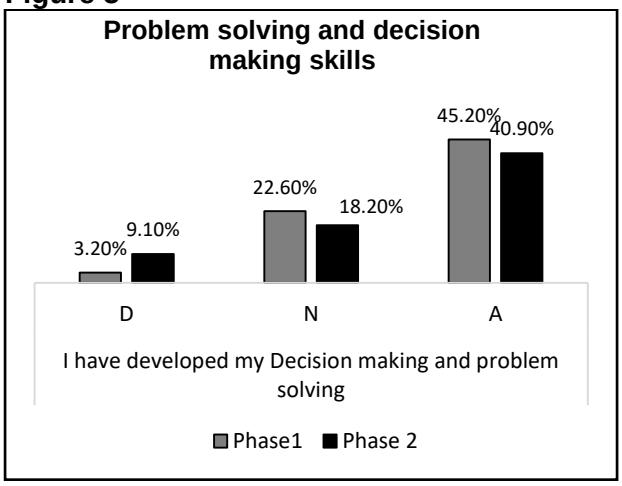

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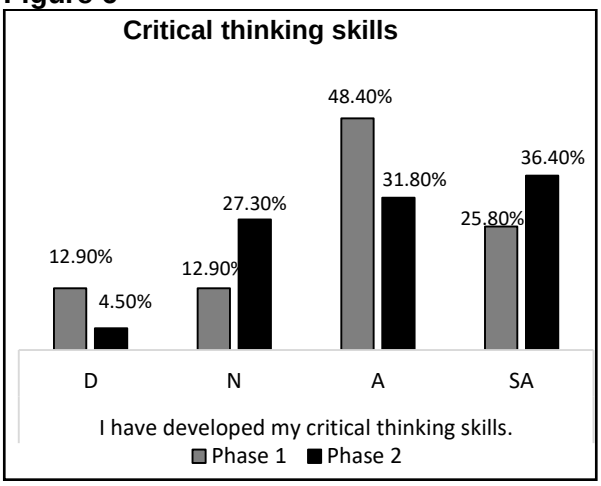

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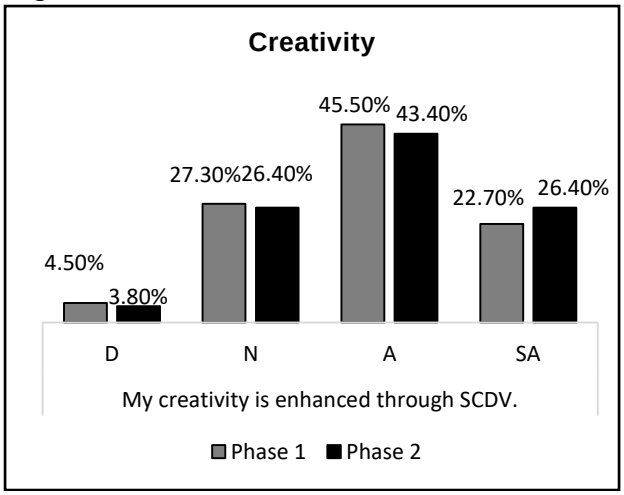
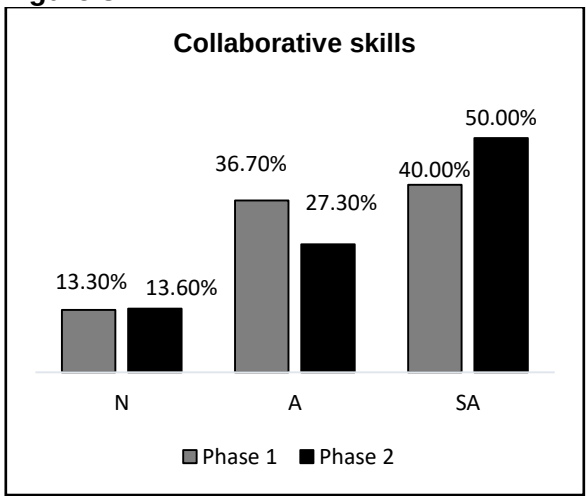


Figure 8



4. Discussion of findings

The project was based on the experiential and constructivist standpoints which propose that students are the creators of knowledge. As apparent from the students' reflections the project empowered them to become active producers of knowledge and content. They were learning while being involved in various activities instead of being passive recipients of knowledge. These findings align with the conclusions drawn by Greene and Crespe (2012). Enhanced learner engagement is also an outcome of the motivational power of ICT enhanced projects which is supported by Sun and Yang (2013).Since the students were encouraged to think critically and take decisions on their own, most of them agreed that these skills were enhanced. This confirms the findings of Reid, Burn and Parker (2002), Hafner and Miller's (2011), Robin (2008) and Sadik (2008), and Abdel-Hack & Helwa (2014).

5. Pedagogical implications, limitations and conclusion

Having used the project successfully, the researcher can safely assume that SCDV holds a great potential as it can boast of a number of advantages for students as well as tutors and therefore posit significant pedagogical implications for the EFL academia. Hence, EFL educators and course designers should ponder over the possibility of integrating SCDV projects into their courses which aim at engaging students in constructive tasks that promote critical thinking, creativity and social skills among learners, rather than the mere acquisition of facts.

However, there are certain limitations of the study. First the, the findings were derived from a relatively small population sample of Oman and it might be difficult to generalize the findings to other courses or a different contextual setting and population. SCDV being a challenging project for students as well as tutors, time constraints are always an issue. In addition, students faced challenges with respect to technical issues. Lastly, for any ICT integrated approach, teacher motivation is the key to success. The potential of ICTs can only be fully exploited if there is an enthusiastic participation from teachers. Unfortunately, there is still a gap between the innovation objectives and the level of ICT use by teachers (Naqvi, Khan, & Al Mahrooqi, 2015).

To conclude, the objective of the project was satisfactorily achieved. Students found it both educational and entertaining. Students developed a range of English language and other skills as the project reached its culmination. Hence the researcher confirms that the SCDV has a huge untapped potential of helping learners acquire language as well as other skills. The conclusion, therefore, is an invitation to educational institutions, curricula designers and instructors to incorporate a reasoned proportion of SCDV projects in their schemes.

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