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Research Article

Examining the Impact of EnglishXP: Cultural Quest on ESL Students' Motivation through a Quasi-Experimental Study

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Abstract: This study analyses ESL student motivation concerning EnglishXP: Cultural Quest. A quasi-experimental design was used, which included a control group, an experimental group, a pre-test, and a post-test, which involved a total of 210 students. Students completed a motivation survey that identified constructs on autonomy, competence, and relatedness. Students using the innovation had a larger gain in motivation, in general. Competence was by far the largest dimension. Findings indicate that culturally relevant, game-based elements encourage motivation. The study shows the value of interactive and culturally relevant elements in ESL teaching.



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1. INTRODUCTION

In Second Language (ESL) classrooms, the issue of maintaining the motivation of students is a frequent problem, especially where the methods used in the instructions are based on the traditional methods of teaching that include the use of printed forms and teacher-centred instructions. Most learners show little motivation when they feel that tasks set to be performed are repetitive or do not relate to their life experiences. This leads to motivation playing a significant role in determining

participation, persistence, and general development of language in students (Dornyei, 2001). Herein, there is an increasing demand for more interactive, meaningful, and relevant approaches to instruction that can be related to the backgrounds of learners.

New opportunities in digital learning have created new opportunities to improve motivation in learning classrooms. Other strategies like Game-Based Learning have become popular due to their capacity to generate interactive and immersive learning experiences (Plass, Homer, and Kinzer, 2015). Students can be more interested and actively engaged through elements of the game, including challenges, rewards, and interactive narratives. These characteristics are especially efficient in case they correspond to the needs and learning goals of learners. Moreover, digital tools enable multimodal learning experiences, integrating visual, textual, and interactive elements, which can aid various learning styles (Mayer, 2009).

The sense of autonomy, competence, and relevance of learners is also directly related to motivation in language learning. Self-Determination Theory states that students become more motivated when they feel that they have control over their learning process and believe that they can achieve success, along with the fact that what they are learning matters (Deci and Ryan, 2000; Ryan and Deci, 2020). Thus, more instructional designs offering students choice, attainable difficulties, and purposeful content are likely to increase their intrinsic motivational levels. Additional means of reinforcing this relationship in the ESL setting are the use of culturally relevant materials, as this would make the learning process appear more natural and closer to the real world.

Culturally Responsive Teaching has been a popular way of supporting the integration of culture into language learning by highlighting the need to link instructional materials with the cultural backgrounds and experiences of the learners (Gay, 2010). Learning can be made more inclusive and meaningful when the aspects of various cultural festivals, including Hari Raya, Chinese New Year, Deepavali, Kaamatan, and Gawai, are integrated in a multicultural setting, like in Malaysia. Students become more engaged and appreciated in the classroom when their own cultures are reflected in the learning materials.

To address these requirements, this paper proposes a digital learning innovation, EnglishXP: Cultural Quest, which aims to improve the motivation of students by integrating elements of games and culturally related content. The innovation is structured towards a pre-while-post format, involving interactive pre-learning activities, comic-style teaching material, and a role-playing game (RPG) as a post-learning activity. This is in contrast to traditional learning techniques, where task sheets would be printed and handed out to learners; this method seeks to offer a more interactive and immersive learning experience. Therefore, this study aims to answer the following research questions:

RQ1: Is there a significant difference in students' motivation before and after the use of EnglishXP: Cultural Quest?

RQ2: Is there a significant difference in motivation between students who use EnglishXP: Cultural Quest and those who receive conventional instruction?

RQ3: Which dimension of motivation (autonomy, competence, or relatedness) shows the highest level of motivation among students in the experimental group?

2. LITERATURE REVIEW

2.1 *Student Motivation in ESL*

Motivation of students is the key element in second language learning, which directly affects the engagement, persistence, and success of learners. Motivation is frequently associated with the way students see the applicability and usefulness of learning activities in ESL settings. When learners perceive tasks to be relevant and relevant to themselves, they tend to engage more in the learning process. Second Language Motivation states that motivation is not an unchangeable characteristic, but it is a dynamic factor that can be influenced by classroom experiences and teaching methods (Dörnyei, 2001). The issue of motivation in language learning has been extensively studied in the field of education research and has been emphasised as a factor that has contributed to long-term learning (Dörnyei and Ushioda, 2011).

The need to motivate language learners has remained significant in recent research. As an example, Lamb et al. (2019) emphasise that motivated students are more inclined to dedicate their efforts and continue to learn consistently. On the same note, Al-Hoorie (2017) reports that motivation in the second language acquisition has taken a new turn towards cognitive, emotional, and social aspects. These views indicate that motivation does not just depend on the internal factors, but it also depends on the learning environment and the strategies used to teach.

Self-Determination Theory is a practical theory that can be used to explain student motivation. The theory suggests that learners will be more motivated when three psychological needs are satisfied: autonomy, competence, and relatedness (Deci and Ryan, 2000; Ryan and Deci, 2020). This means that in ESL classrooms, students are better placed to get motivated when they are accorded meaningful options, have a sense of achievement, and feel connected with the learning materials. So, the instructional strategies that address these needs are necessary to boost motivation.

2.2 *Game-Based Learning and Motivation*

The use of Game-Based Learning has gained increasing attention as an effective strategy for enhancing student motivation. Game-based learning incorporates elements such as goals, challenges, feedback, and rewards, which can create engaging and interactive learning environments. These elements are known to increase students' interest and encourage active participation in learning tasks.

Research has shown that game-based learning can positively influence motivation and engagement. Plass et al. (2015) explain that well-designed educational games can support both cognitive and emotional aspects of learning. Similarly, Hamari et al. (2016) found that game elements such as challenge and feedback contribute to higher levels of student engagement. These findings suggest that game-based approaches can make learning more enjoyable while also supporting learning outcomes. More recent evidence also confirms that gamification has a significant positive effect on motivation and learning outcomes (Sailer & Homner, 2020). Digital games promote active learning through problem-solving and participation, allowing learners to engage meaningfully with content (Gee, 2003). Previous studies have also shown that game-based learning environments can significantly enhance students' motivation and engagement when learning activities are designed to be interactive and goal-oriented (Wouters et al., 2013).

In addition, recent studies highlight the role of gamification and interactive digital environments in sustaining motivation. Clark et al. (2016) report that digital games can improve learning outcomes when they are aligned with instructional objectives. However, the effectiveness of game-based learning depends on how well the game elements are integrated into the learning process. Poorly designed games may distract students rather than support learning. Therefore, it is important to design game-based activities that are meaningful, structured, and aligned with learning goals.

2.3 Cultural Integration in Language Learning

Game-Based Learning has become a more popular solution to the motivation of students as a strategy. The goals, challenges, feedback, and rewards elements of game-based learning can form interactive and engaging learning environments. These factors are recognised to enhance the interest of students and motivate participation in the learning activities.

It has been found that game-based learning can be positively associated with motivation and engagement. According to Plass et al. (2015), educational games should be designed to facilitate both cognitive and emotional learning. Equally, Hamari et al. (2016) discovered that certain aspects of games, like difficulty and feedback, can be used to increase the degree of student engagement. These results indicate that game-based strategies are able to make the learning process enjoyable as well as facilitate learning. Even more recent evidence supports the same claim and states that gamification produces a strong positive impact on motivation and learning outcomes (Sailer and Homner, 2020). Digital games encourage active learning with problem-solving and participation, enabling learners to interact meaningfully with the content (Gee, 2003). Past research has also indicated that game-based learning classrooms can have a major impact on the motivation and engagement levels of students when learning tasks are structured in an interactive and goal-oriented manner (Wouters et al., 2013).

Moreover, recent research points to the potential of gamification and interactive online settings in maintaining motivation. According to Clark et al. (2016), digital games can enhance the learning outcomes as long as they are consistent with the instructional goals. The success of the game-based learning process, however, lies in the extent to which the game elements are merged into the learning process. Games that are not well structured can be a distraction to students as opposed to facilitating learning. Thus, meaningful, structured, and goal-oriented game-based activities should be designed.

2.4 Digital Learning and Role-Playing Game (RPG) Elements

Digital learning has revolutionised the manner of delivering language instructions are delivered by providing additional opportunities for interactive and personalised learning. Digital tools can enable educators to create multimodal learning spaces, incorporating text, visuals, and interaction. Mayer (2009) cites that multimedia learning can be effective at improving understanding by introducing information in various formats. Language learning is also facilitated by digital environments due to meaningful interaction and contextualised input (Chappelle, 2003).

Role-playing game (RPG) elements are one of the emerging digital learning techniques. Learning based on RPG enables students to role-play, make choices, and do narrative-based activities. These characteristics have the potential to enhance immersion and motivation through meaningful learning activities. Active learning is also encouraged through RPG elements, as the students are not just presented with information passively.

New studies indicate that a digital and game-based setting can boost motivation when this setting offers instant feedback, goals, and advances (Hamari et al., 2016). Moreover, language learning can be more interactive and contextualised with the help of interactive storytelling and scenario-based learning. By blending with culturally relevant content, the digital RPG may form an effective learning experience that fosters motivation and learning.

Thus, the combination of digital learning, game-based, and cultural content is an expedient solution to motivation improvement in ESL classrooms. Nevertheless, the empirical studies that investigate the efficacy of such approaches of integration are still required. This research fills this gap by examining the effects of EnglishXP: Cultural Quest on the motivation of students using a quasi-experimental design.

3. METHODOLOGY

3.1 Research Design

A quasi-experimental study design, namely a non-randomised pre-test post-test control group design, was used in this study. This design was chosen since the participants were not randomly allocated but assigned to the existing classroom groups. This design was aimed at studying the effect of EnglishXP Cultural Quest on student motivation through the comparison of the results of the experimental group and the control group. A motivation questionnaire was used to assess the two groups both at the start and the end of the intervention. The digital innovation was introduced to the experimental group, and the traditional teaching with printed task sheets was provided to the control group. The presence of both pre- and post-test measures afforded the opportunity to compare changes in motivation through time and across groups.

3.2 Participants

The sample comprised 210 students of the English major in a higher education institution. The students were grouped into two groups, where an experimental group consisting of 105 students and a control group of 105 students were used. These groupings were done on intact classes to ensure the natural classroom environment. The respondents were of similar academic background since they were taking English-related courses. This helped to guarantee a reasonable degree of comparability among the groups, in spite of the fact that, as a result of practical considerations, no random assignment was applied.

3.3 Instruments

The main tool of this research was a motivation questionnaire that was used to determine the motivation of students in ESL learning. The questionnaire has followed a five-point Likert scale, with the range of 1 (strongly disagree) to 5 (strongly agree). The questionnaire was created, according to the constructs of autonomy, competence, and relatedness based on Self-Determination Theory (Deci and Ryan, 2000; Ryan and Deci, 2020). The dimensions have been chosen to reflect the feeling of control students have in their learning activities, their confidence in accomplishing tasks, and their relationship to the learning material.

Cronbach's alpha was used to test the internal consistency of the instrument, and the results showed that the instrument had high reliability ($\alpha = 0.87$). This implies that the questionnaire items were the same to measure the construct of student motivation. The questionnaire was given in two sessions, before the intervention as a pre-test and after the intervention as a post-test, so that the changes in motivation of the students could be measured over time.

3.4 Data Collection Procedures

The experiment was carried out during a systematic teaching time in a pretest/posttest/control group design. The experimental group students were exposed to the EnglishXP: Cultural Quest innovation, a digital learning and cultural content with a game-based component. Throughout the pre-activity phase, students were engaged in interactive online activities that involved them choosing items associated with proper use of tenses. These activities were contextualised with elements of the culture like Hari Raya, Chinese New Year, Deepavali, Kaamatan, and Gawai, making the content more familiar. During the while activity, the students encountered digital material in the form of a comic that introduced the idea of grammar using visual stories. This method was meant to aid in comprehension in both written and graphical formats. During the activity after the stage, students played a role-playing game (RPG), where they chose the right answers to advance the game. This phase involved interactive,

e.g., challenges, and instant feedback to increase engagement. The illustrations of every phase are as follows:



Figure 1. Pre-lesson introductory stage (EnglishXP: Cultural Quest)



Figure 2. While-lesson comic-style content (EnglishXP: Cultural Quest)

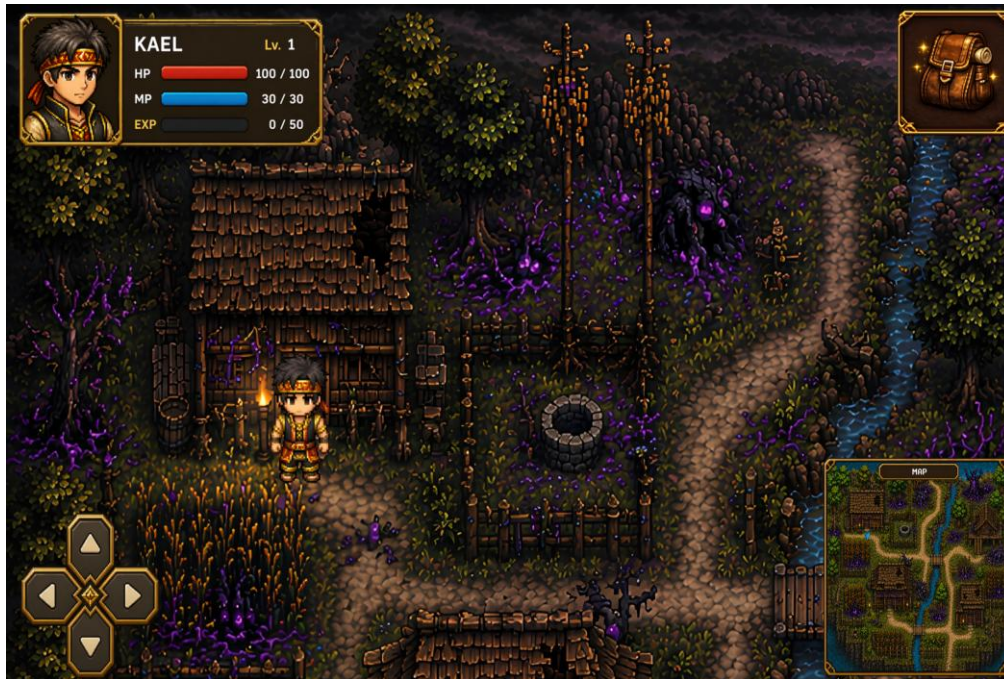


Figure 3. Post-Lesson RPG game format (EnglishXP: Cultural Quest)

Conversely, the control group was taught using traditional methods of printed materials. This group of students read task sheets and worked on exercises on printed question sheets. Despite the fact that the material taught was the same as in the case of the experimental group, the teaching methodology lacked the use of digital technology, game-based, and culturally interactive aspects.

3.5 Data Analysis Procedures

The quantitative methods were used to analyse the data collected in the pre- and post-test questionnaires. The motivation levels of the students were summarised using descriptive statistics, especially the mean scores. A paired samples t-test was used to test differences in motivation in each group, comparing the pre-test and post-test scores. Also, an independent-samples t-test was performed to determine the differences in post-test motivation scores between the experimental and the control group.

The analysis of the various dimensions of motivation, that is, autonomy, competence, and relatedness, in students of the experimental group, was also done using descriptive statistics to answer the third research question. Mean scores of each dimension were then computed depending on the respective questionnaire items in order to know which dimension registered the highest motivation after the intervention.

4. FINDINGS

The instrument reliability was initially tested to ascertain the uniformity of the questionnaire to be used in this study. The findings also showed a good to excellent internal consistency with a Cronbach alpha of .90 and .91 in the pre-test and post-test, respectively. Subscale reliability scores were between .73 and .81, indicating that there was a reasonable consistency between the dimensions.

Subsequently, inferential statistical analyses were carried out to cover the research questions. The paired-samples t-test was performed to investigate the change in motivation of students before and after the intervention (RQ1), and the independent-samples t-test was performed to compare the motivation of experimental and control groups (RQ2).

4.1 RQ1: Is there a significant difference in students' motivation before and after the use of EnglishXP Cultural Quest?

Table 1. Paired Samples Statistics (Motivation Scores by Group)

Group	Variable	Mean	N	Std. Deviation	Std. Error Mean
Experimental Group	MeanforPre	2.97	105	0.41	0.04
	MeanforPost	3.86	105	0.39	0.04
Controlled Group	MeanforPre	2.98	105	0.42	0.04
	MeanforPost	3.27	105	0.42	0.04

Table 2. Paired Samples Test (Motivation Scores by Group)

Group	Comparison	Mean Difference	t	df	Sig. (2-tailed)
Experimental Group	Pre – Post (Experimental)	-0.886	-43.84	104	< .001
Controlled Group	Pre – Post (Control)	-0.290	-14.21	104	< .001

Each group was subjected to a paired-samples t-test to test the differences in motivation levels of students before and after the intervention. The experimental group results indicated that there was a significant increase in motivation, $t(104) = -43.84, p < .001$. This means that EnglishXP: Cultural Quest resulted in a high degree of motivation among students.

A significant difference was also found in the case of the control group, $t(104) = -14.21, p < .001$. Nevertheless, the change magnitude was lower than in the experimental group, which indicates that the change in motivation was more significant in the students who used EnglishXP: Cultural Quest.

RQ2: Is there a significant difference in motivation between students who use EnglishXP: Cultural Quest and those who receive conventional instruction?

Table 3. Group Statistics (Post-Test Motivation Scores)

Group	N	Mean	Std. Deviation	Std. Deviation Mean
Experimental Group	105	3.86	0.39	0.04
Controlled Group	105	3.27	0.42	0.04

Table 4. Independent Samples Test (Post-Test Motivation Scores)

Variable	Levene's F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
MeanforPost	0.467	.495	10.49	208	< .001	0.585

The independent-samples t-test was used to compare the motivation of the students in the experimental and the control groups with the post-test scores. The findings revealed that the experimental group was much more motivated compared to the control group, $t(208) = 10.49, p < .001$.

The test conducted by Levene showed that the homogeneity of variance was not violated ($p = .495$) and thus, the outcome of the test that assumed equal variances was considered. These results show that students who took the EnglishXP: Cultural Quest had a higher degree of motivation in comparison to those who had conventional instruction.

4.3 RQ3: Which dimension of motivation (autonomy, competence, or relatedness) shows the highest level of motivation among students in the experimental group?

Table 5. Post-Test Motivation by Dimension (Experimental Group)

Dimension	N	Mean	Std. Deviation
Autonomy	105	3.72	0.41
Competence	105	3.91	0.38
Relatedness	105	3.65	0.43

The level of motivation on the three dimensions in students in the experimental group after the intervention was analysed using descriptive statistics. The scores showed competence had the best mean score, then autonomy and relatedness, which had the lowest mean score.

This indicates that the students were highly motivated when they believed they could succeed in accomplishing tasks and learning material. The comparatively high score in autonomy also shows that students had control and choice in the learning activities, whereas relatedness, although positive, was relatively lower compared to the three dimensions.

4. DISCUSSION

The purpose of the study was to investigate the effect of EnglishXP: Cultural Quest on the motivation of students in ESL learning. The results show that the innovation positively and markedly impacted the motivation of students, and more students in the experimental group showed an increase than students in the control group who received traditional instruction.

The findings indicate that the digital and interactive elements may have been integrated to enhance the engagement levels. The step-by-step pre-while-after method seems to have allowed long-lasting engagement, starting with the mobilisation of background knowledge, then being guided through learning materials in the form of comics, and reinforced by role-playing exercises. These characteristics probably promoted engagement and kept students glued to the lesson. This observation is in line with studies on game-based learning, which highlight the importance of interactivity in stimulating motivation (Plass et al., 2015).

The control group also improved, but it was at a significantly lower rate. This implies that conventional teaching might facilitate learning, but it might not be effective in maintaining the motivation of the students. The greater enhancement in the experimental group implies that the innovation offered extra motivational support compared to traditional approaches.

The results can also be elaborated by applying Self-Determination Theory (Deci and Ryan, 2000; Ryan and Deci, 2020) as one of the theories that emphasise the importance of autonomy, competence, and relatedness as the primary determinants of motivation. The RQ3 results indicated that competence was registered the greatest among the three dimensions, meaning that students were most motivated when they felt competent to do the tasks successfully. The RPG component, with the use of structured activities and immediate feedback, could have enhanced the sense of competence among students. Autonomy was also relatively high, which suggested that the students had options in the learning process, and relatedness, albeit low, was positive and could be facilitated by the use of culturally familiar material.

The inclusion of cultural aspects also contributed to the learning process by making it meaningful and relevant. The fact that it included common cultural celebrations like Hari Raya, Chinese New Year, Deepavali, Kaamatan, and Gawai could have enhanced students' interest. This upholds the philosophy of Culturally Responsive Teaching (Gay, 2010) that stresses the need to relate learning material to the culture of the students.

These results indicate that digital, game-based, and culturally relevant strategies can be effectively employed in stimulating motivation among students in ESL classrooms. Nonetheless, motivation was the only outcome considered in this study, with no analysis of other results such as language proficiency or sustained retention. Future studies might investigate the effect of EnglishXP: Cultural Quest on other dimensions of language acquisition in the long-term.

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