



The Motivational Outcomes Of Connectivism Theory In EFL

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ABSTRACT

The purpose of this study was to examine the effect of connectivism instructional method in comparison with communicative language teaching method on academic self-efficacy and task value among students in EFL. The current study was a 2 (instructional methods)*2 (genders) factorial design with pre-post-test. Statistical population included all high school students in grade 3 from Ramhormoz city in Iran. Participants included students in four classes that were selected by available sampling method and then completed the motivational beliefs subscale of MSLQ (1991). The results showed the connectivism instructional method was significantly more effective than communicative language teaching method. Based on the results of this research, it is concluded that connectivism instructional method provide unique opportunities for increasing the self-efficacy and task value of students by increasing social intractions and diversity for choosing tasks. Accordingly, this research suggests the application of connectivism instructional method in order to increase academic self-efficacy and task value in EFL classrooms for the students.

1. Introduction

The ultimate goal of educational approaches in each of the areas of learning, including English teaching as a foreign language, is facilitating the learning processess in learners. However, education in its best form should not only lead to learning in learners but also need to activate learning-related potentials (Hargreaves, 2004). Accordingly, there can be some motivational outcomes such as academic self-efficacy and task value as important learning outcomes related to learning (Pintrich & DeGroot, 1990). Academic self-efficacy was first introduced in social cognitive theory by A. Bandura's (1986). Self-efficacy is defined as personal judgments of one's capabilities to organize and execute actions to attain designed goals (Bandura,1997; 2006). Also, academic self-efficacy specifically refers to student's beliefs about their ability to successfully complete academic assignments (Bandura, 1986). D.H. Schunk (1991) offered a similar definition for academic self-efficacy, which refers to student's beliefs about their ability to perform academic tasks at designated levels and ultimately leads to desirable and significant outcomes associated with learning. The direct relationship of the self-efficacy to learning has been reported in various studies (e.g. Bandura, 1993; Neuville, Frenay, & Bourgeois, 2007; Palos et al, 2011; Yazici, Seyis, & Fatma, 2012; Kim, & Park, 2015; Papa, 2015; Alqurashi, 2016; Gbollie, & Keamu, 2017). For instance E. Alkurashi (2016) in a research aimed at examining the role of academic self-efficacy in online learning environments concluded that a high academic self-efficacy in learners leads to their better use of

online learning environments.

Moreover A. Wigfield and J.S. Eccles (2000) in their social cognitive model of expectancy-value paid attention to another component called task value. According to P.R. Pintrich and E.V. DeGroot (1990), task value is one of the main components associated with motivational beliefs. Task value refers to the students' perception of the interest, importance, and usefulness of the materials and the learning content at classrooms (Pintrich, Smith, Garcia, & McKeachie, 1993). Also, task value refers to student's perceptions of the interest, usefulness, importance, and cost of a task. Attention to task value has led to desirable and significant outcomes associated with learning (Eccles & Wigfield, 2000), and the direct relationship of it with learning has been reported in various studies (e.g. Pintrich, & DeGroot 1990; Zimmerman & Pons, 1990; Bong, 2001; Hemin Khezri et al, 2014; Al-Harethi & Aldhafri, 2014; Lawanto et al, 2014). For instance, P.R. Pintrich and E.V. DeGroot (1990) pointed to the positive role of task value in relation to academic achievement.

According to social cognitive theorists such as B. Zimmerman (2000), J.B. Smart (2014), L. Linnebrinck-Garcia, E.A. Patel, and R. Packan (2016), the quality of education, teaching strategies and the teacher's teaching style have central roles in order to enhance the motivational outcomes including academic self-efficacy and task value. educational systems always seek ways to provide the desirable motivational outcomes for learners, in order to engage them in formal and informal activities related to education and learning (Lester, 2013). Also, M. Borna (2012), G.H.R Golmohammadnejad Bahrami (2015), J. Sánchez-Rosas and S. Esquivel (2016) have pointed to the role of educational approaches as one of the most important factors influencing motivational outcomes. Finally, B. Prince (2017) and K. Kultawanicha, P. Koraneekija, and J. Na-Songkhlaa (2014) believe that one of the main consequences of effective education is to create positive motivational outcomes such as academic self-efficacy and task value in learners. Therefore, in their view one of the most important feature in identifying or distinguishing desirable approaches from undesirable ones is the motivational outcomes of these approaches. Educational approaches in the field of teaching EFL due to their comprehensiveness in their theoretical frameworks (such as the role of teacher, the role of student, the content of learning) claim to focus on other variables in addition to learning. In fact, first these approaches are trying to have a desirable impact on learning. Then they seek to extend this impact to other variables related to education and learning such as academic self-efficacy and task value. Accordingly, considering the importance of motivational outcomes the present research tries to examine the effectiveness of connectivism-based approach on self-efficacy and task value in comparison to CLT among high school students.

The communicative language teaching approach or CLT was raised in the second half of the 20th century in the field of teaching and learning the second language. This approach was first introduced in the late 1960s when linguist Noam Chomsky developed a theory that led to the notion of the term communicative competence (Savignon, 1991; 2007). Second, According to J.C. Richards and J.T. Rodgers (1986, p.64), the CLT could date back to the changes in the British language teaching tradition originating from the late 1960s. At that time, applied linguists in Britain began to call into question the theoretical assumptions underlying situational language teaching and seeks to strengthen the language skills of the learners by paying attention to community competence (Savignon, 2007; Muhammad, 2016; Tan, 2016; Kibbe, 2017). CLT is a cover term for a number of approaches that developed in the 1970s in critical reaction to audio-lingual teaching methods and their unsatisfactory results. They all criticize the mechanistic nature of audio-lingual pattern drills which fail to prepare learners for a productive use of the target language in the many different communicative situations of everyday life. The common goal of communicative approaches is communicative competence (Power, 2003). Also the CLT approach highlights learners' communicative competence (Hymes, 1972), which is defined as

learners' ability to efficiently express what they mean in the target language and successfully achieve communications in real-life situations (Lightbown and Spada, 1999; Power, 2003; Richards, 2006). CLT seeks to strengthen communicative competence. However, this approach has come with some problems that caused this method turn out not to be so much successful and the learning outcome not to be efficient enough. These include student's lack of motivational outcomes for developing communicative competence, low English proficiency and resistance to class participation, incompatibility of CLT teaching method with university entrance exam, lacking CLT a clear cut assessment procedure, incompatibility of CLT with EFL home culture and values, not having sufficient teacher training courses to promote teachers awareness, challenges related to creating the right kind of interaction for teachers, little time for developing materials for communicative classes, and large classes. In addition, there is an important problem that causes the method turn out not to be so much successful- this method does not involve using digital or virtual space in order to teaching of EFL (Koosha, & Yakhabi, 2013; Maryslessor, Barasa, & Omulando, 2014; Heidaryasl, 2015). Therefore, given the above considerations, it is necessary to pay attention to new educational approaches in order to overcome the challenges of teaching and learning of EFL.

Connectivism is a new theory of learning that has been proposed by George Siemens and Stephen Downes in recent years following the changes in the digital era (Siemens, 2005; Downes, 2008; 2012). The connectivism theory has been developed for global village with insisting on distributing knowledge and experience and consequently changing the concept of learning (Bell, 2011; Barnett, McPherson, & Sandieson, 2013; Ozan, 2013; Ibrahim & Ibrahim, 2017). Stated simply, connectivism is social learning that is networked (Duke, Harper, & Johnston, 2013). G. Siemens (2005; 2012) coined the term connectivism, to describe learning networks. Connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks. An account of connectivism is therefore necessarily preceded by an account of networks (Downes, 2012). This theory claims to have made new developments through the attention to the effects of the advent of the digital era, in the field of education and learning in general and teaching and learning of EFL in particular. For instance, K. vesela (2013) believes that the application of the principles of connectivism theory in teaching EFL includes focusing on the categories that are rarely found in the common approaches of teaching EFL such as the CLT approach. Categories such as concurrent attention to the diversity of opinions, English learning is a process of creating connections among the nodes or information resources, English teaching may reside in human and non-human appliances, in order to English learning currency (daily use and operation) and accuracy is the aim of connectivist activities, also the role of supportive and facilitator of the teacher among the most important components that are considered in the teaching of English using connectivism theory. These components have not been considered in the CLT approach.

There is little research on the effect of connectivism-based education on the motivational outcomes such as self-efficacy and task value. However, few studies examined the relationship between connectivism theory and motivational outcomes in the recent years. For example, K. Kultawanicha, P. Koraneekija, and J. Na-Songkhlaa (2015) believe that the connectivism theory has the potential strength to increase learner's motivational outcomes in association with learning experiences. Also U. Noytim (2010) believe that the use of web-based technologies in the process of training will increase the motivational outcomes. Ultimately, G.H.R. Golmohammadnezhad Bahrami (2015) believes that the use of web-based technologies in education and learning through increasing of social interaction, updating learners and an active effort to acquire new knowledge will lead to improving of academic self-efficacy, task value and the amount of learning. Therefore according to the

specialists, approaches based on connectivism theory is likely to have a better ability to increase motivational outcomes in the present era.

Based on the above considerations, the question arises whether the connectivism theory can be increased the self-efficacy and task value through the integrated attention to the features such as knowledge management by students, up-to-date and attention to lifelong learning, interaction and attention to the role of digital media? As previously mentioned, U. Noytim (2010), G.H.R. Golmohammadnzhad Bahrami (2015), and Zimmerman, & Kulikowich (2016) showed that interaction and establishing social relationships through access to new spaces, also the role of digital media as a challenging opportunity in teaching the present era; it has led to a significant increase in academic self-efficacy and task value, interest and confidence in learners. So finally it can be concluded that the use of the connectivism theory could be possibly led to promoting of self-efficacy and task value. Also due to what has been said about the factors influencing the motivational outcomes; the supporting and facilitator role of the teacher, the management of the learning process by the learners, and active learning through formation of peer groups and relationships are among the factors of creating positive motivational outcomes such as academic self-efficacy and task value in learners (Kultawanicha, Koraneekija, & Na-Songkhlaa, 2015; Prince, 2017). Hence, the attention to the above features seems to be among the key principles of connectivism. So that, G. Siemens (2005; 2012) believes learning is available knowledge management that occurs through the formation of real or virtual human networks. Finally, it seems that when students acquire the necessary opportunity to acquire the required knowledge and then formulate the concept based on their interests and backgrounds, they will experience as much improving in motivational outcomes as such as self-efficacy and task value. Therefore, the connectives theory of learning should most likely have the capacity to help learners to create desirable motivational outcomes in comparison with CLT, and it is expected that the use of connectives theory in current study will improve the motivational outcomes for learners in comparison to CLT.

Another problem that has been addressed in this study is gender role as a moderating variable. The principle of diversity is emphasized as one of the main features of the connectivism approach. As G. Siemense (2005) and S. Downes (2012) believe that diversity in the identification of nodes and networks and how to connect them has a fundamental importance in learning. Also, according to G. Siemens (2005), available knowledge, the principle of decision making, and the interaction of learners in the digital environment is emphasized in education through the connectivism approach. In fact, according to G. Siemens (2005) and Downes (2012), it can be expected that the type of interactions that learners create in the connectivism approach will lead to different gender preferences. As these different gender preferences ultimately lead to different motivational outcomes in learners. For example, the principle of diversity can be found in lexical preferences associated with gender or communication content among learners. Therefore, considering the above characteristics the question arises as to whether the effectiveness of connectivism-based approach is significantly different about motivational beliefs between males and females? The present research is important because it firstly addresses one of the most important problems in Iran's educational system. Education of Iran every year costs millions of dollars for teaching English. But the result of this investment is the cost of graduating graduates who ultimately do not achieve language competences in accordance with R.L. Oxford's (2003) definition of EFL and the efforts made in this area largely fail.

Research hypotheses

- 1- The effect of connectives-based approach on the motivational beliefs is more than the communicative language teaching approach in EFL.

- 2- There is a difference between males and females in terms of the effectiveness of the connectives-based approach on motivational beliefs in EFL.

Research methodology

This research is a quasi-experimental design using pre-test and post-test. The statistical population of this study included all male and female students of the third grade high schools from Ramhormoz city in Iran, who were studying in 2016-2017. Participants were students in four classes who were selected by available sampling. Then each of the classes was assigned to one of the two groups using the random division. After administration of pre-test, the training packages related to independent variable levels were performed over a period of 9 sessions of 90 minutes. Finally, to investigate the possible effects of educational approaches a post-test on academic self-efficacy and task value of English language was implemented.

The instrument used in the present study was Motivated Strategies for Learning Questionnaire (MSLQ) that prepared by P.R. Pintrich et al (1991). In this study, academic self-efficacy subscale including 8 items and task value subscale including 6 items were used. The participant's responses scored using a 5-point Likert type scale, from 1(not at all true of me) to 5 (very true of me). In the academic self-efficacy subscale, students respond to questions such as «I'm sure I can have good performance in language lessons and exams». Also in the task value subscale, students respond to questions such as «It's very important for me to learn the content of this lesson». All questions are graded directly in self-efficacy and task value subscales. The reliability of this scale was reported using Cronbach's alpha for academic self-efficacy ($r=0.93$) and task value ($r=0.90$) by P.R. Pintrich et al (1991). Also, they used a factor analysis to evaluate the construct validity, which resulted in the scales confirmed in this questionnaire. In the present study, for the purpose of reliability analysis, Cronbach's alpha was used. The coefficients for academic self-efficacy and task value were 0.92 and 0.87, respectively, which are reliable coefficients. Also in order to study the construct validity of the motivational beliefs questionnaire a confirmatory factor analysis was used. For this purpose, the main components analysis method was used. The KMO coefficient was 0.823, which indicates the adequacy of the sample for performing factor analysis. The value of Bartlett's sphericity test was 648.676 and also significant at $P<0.0001$. Then, according to the value of the specific that was above one, and also the charts and using the irregular rotation method, the varimax method was two subscales, which explained 65.52% of the total variance of the scores. All of the items, according to P.R. Pintrich et al (1991), were related to their own.

In the connectivism-based training group the use of knowledge management in nodes, human resources and inhumanity, the identification and use of networks related to the learning unit, the use of real and virtual networking and the formation of groups was emphasized. Also, in the CLT group the use of the target language, communicating through short dialogues and creating two or more interactions in the classroom was emphasized. For instance, in table1 a brief description of the first session of each of the experimental groups is presented.

Table 1. A brief description of the first session with topic «Where are you from? »

First session	content
CLT	A new lesson begins by broadcasting dialogues related to the title of the lesson through the bar. Then those dialogues are run by the teacher. After that the learners will run two or more multi-player dialogues. Finally teachers learn the important points of dialogue through teacher guidance.

Connectivism-based approach

Pre-class learners collected words related to the new lesson using the information of available human and inhuman nodes and networks such as sites, real and virtual dictionaries, virtual language learning groups, language partners and virtual networks related to English language training. Accordingly, the teacher asked the groups to introduce the world's 20 countries. Also, sort these countries based on geographic diversity and the continents. Then the students will introduce the capital of those countries and will provide some information about the population of those countries.

Results

In the present study, the effect of educational approaches including connectivism and CLT on academic self-efficacy and task value was studied in male and female students. First, descriptive statistics including mean and standard deviation of the pre-test and post-test scores for dependent variables are presented in table 2.

Table 2. Mean and standard deviation of academic self-efficacy and task value in male and female students

Variable	test	CLT group N=40				Connectivism group N= 40			
		Mean		Standard deviation		Mean		Standard deviation	
		Male	Female	Male	Female	Male	Female	Male	Female
Academic self-efficacy	Pre-test	5.55	6.30	.630	.309	6.55	1.55	.449	.74
	Post-test	8.65	7.25	.655	.234	2.65	6.00	.277	.65
Task value	Pre-test	0.30	0.65	.694	.904	8.80	4.80	.938	.51
	Post-test	4.05	2.25	.316	.381	7.40	8.452	.963	.05

The results of table 2 show that the mean scores of students in connectivism and CLT groups are very different in the post-test. For example, the post-test scores of females in academic self-efficacy are 27.25 and 36.00 for connectivism and CLT groups, respectively. Also the standard deviation of male's post-test scores in academic self-efficacy is 5.234 and 6.365 for connectivism and CLT groups, respectively.

The necessary assumptions for multivariate covariance analysis were considered. For example, the dependent variables followed a normal distribution for each group. Because based on the Shapiro-Wilk test, none of the dependent variables are significant at any level of the independent variable. Also, to ensure the assumptions of homogeneity of variance/covariance matrices and homogeneity of variance between groups were checked through the Box's M and Levine's tests, respectively. Meaninglessness of these two was considered as prescriptive observation (BOX' M =15.885, F=1.681, P=088). Ensuring the assumptions allows the use of multivariate covariance analysis method. Accordingly, the multivariate tests are presented in tables 3.

Table 3. Multivariate tests for self-efficacy and task value in educational approaches

test	Effec tests	value	F	sig	ES
Pre-	Wilks'	.	1	.	.

test	Lambda	692	6.480	000	308
p	Group	Wilks'		3	
	Lambda	504	6.418	000	496
sex	Wilks'			1	
	Lambda	964	.392	255	036
Sex*group	Wilks'			1	
	Lambda	957	.664	196	043

Based on the results of table 3, Wilks' Lambda test showed that the effect of educational approaches on academic self-efficacy and task value was significant ($F = 36.14$, $P < 0.001$). So that, considering the effect of pre-test, about 50% of the variance of motivational beliefs was due to teaching methods. Since, the results of multivariate tests was significant, a separate assessment of each of the dependent variables can be made. Thus, in table 4 the results of univariate tests are presented, to examine the effect of the independent variables on each of the dependent variables.

Table 4. Tests of between subject effects for investigating of effect of educational approaches on self-efficacy and task value in male and female students

Source	Dependent Variable	SS	f	S	M	F	sig	ES
Corrected Model	Self-efficacy	142		35		1		
	Task value	5.164		6.291		8.735	001	500
Group	Self-efficacy	600		15		2		
	Task value	.334		0.083		4.928	001	571
Sex	Self-efficacy	579		57		3		
	Task value	.827		9.827		0.489	001	289
Sex*group	Self-efficacy	368		36		6		
	Task value	.176		8.176		1.152	001	449
Error	Self-efficacy	1.5		1.				
	Task value	88		588		071	790	001
Error	Self-efficacy	16.		16		2		
	Task value	775		.775		.786	099	036
Error	Self-efficacy	30.		30		1		
	Task value	193		.193		.588	212	021
Error	Self-efficacy	15.		15		2		
	Task value	890		.890		.639	108	034
Error	Self-efficacy	142						
	Task value	6.323	5					
Error	Self-efficacy	451						
	Task value	.554	5					

The results of table 4 showed that the implementation of teaching methods has a significant effect on academic self-efficacy and task value. So that, after adjusting the pre-test, about 29% of the variance of academic self-efficacy and about 45% of the variance of task value is related to applying teaching methods. Also, according to table 4, the effect of gender variable and its interaction with groups on academic self-efficacy and task value in EFL has not been meaningful. Now that the results of table 4 indicated the significant impact of the implementation of educational approaches on motivational beliefs, one can answer the question of which educational approach has a more effect on academic self-efficacy and task value? In order to answer the above

question, table 4 presents a pairwise comparison of the effects of the experimental groups.

Table 3. Pairwise Comparison for self-efficacy and task value in CLT and connectivism groups

Dependent Variable	group	group	M	S	sig
Self-efficacy	connectivism	CLT	5.474	0.991	.000
Task value	connectivism	CLT	4.362	0.558	.000

The results of table 5 showed that the male and female students in connectivism group was more successful than CLT group in terms of the effect on self-efficacy and task value ($P < 0.001$). This means that the null hypothesis is based on the insignificance of the difference is rejected, and the hypothesis that the students in the education group based on connectivism theory had a more effective performance than the students of the CLT group, were acceptable at a satisfactory level of significance.

Discussion and conclusion

The purpose of this study was to examine the effect of connectivism instructional method in comparison with CLT on the academic self-efficacy and task value of EFL among male and female students. The results of the testing the first hypothesis showed that the experimental group which was trained using connectivism approach showed the more scores in the post-test of academic self-efficacy and task value compared to CLT approach. Therefore, the first hypothesis of the study is confirmed. The recent finding is in accordance with other findings (Noytim 2010; Golmohammadnazard Bahrami, 2015; Kultawanicha, Koraneekija, & Na-Songkhlaa, 2015). For example, the results of K. Kultawanicha, P. Koraneekija, and J. Na-Songkhlaa (2015) showed that the use of connectivism theory in education and learning process will lead to increased motivational beliefs. In explaining the above result, different points can be made. U. Noytim (2010), G.H. Golmohammadnazard Bahrami (2015), and W.A. Zimmerman, and J.M. Kulikowich (2016) believe that interaction and establishing social relationships through access to new spaces; also, the role of digital media as a challenging opportunity in teaching the present era, it has led to a significant increase in the motivational outcomes associated with learning such as academic self-efficacy and task value, interest and confidence in learners.

The explanation for this finding is that the students in the approach based on connectivism theory have opportunities to increase motivational beliefs through diversity and attention to the individual's interest in choosing content or tasks, constructive interaction with human and in human resources, managing all or Part of the learning and knowledge available, and up-to-date through access to digital space (Siemens, 2005). Also, the factors influencing the motivational outcomes, the supporting and facilitating role of the teacher, the management of learning processes by learners and the creation of active learning through the formation of peer groups and relationships are among the factors that create positive motivational outcomes such as academic self-efficacy and task value in learners (Kultawanicha, Koraneekija, & Na-Songkhlaa, 2015; Prince, 2017). Hence, the attention to the above features seems to be among the key principles of connectivism, As Siemens believes;

learning is available knowledge management that occurs through the formation of real or virtual human networks (Siemens, 2005). Therefore, the connectivism theory has been able to demonstrate more impact on academic self-efficacy and task value than the CLT. In this regard, G. Siemens (2005) and K. Veselá (2013) believe that one of the key features of connectivism theory is to pay attention to the above principles. They believe learners are dynamic and active in connectivism educational approach unlike current approaches, and the main task of interacting, identifying nodes, networks, human resources and inhumanities associated with the learning unit, as well as identifying and creating new connections is learners' responsibility. As, this issue ultimately leads to increased self-esteem, academic self-efficacy, interest and task value in learners. Also, the teacher acts as facilitator in the connectivism approach, and learners play a more active role in the learning process in compared with CLT. For instance, students actively find the words related to new learning unit through nodes, networks and available resources, and share them for other students through digital or real environments. In fact, to accomplish such a goal, students need to know the nodes, networks and connections associated with English language learning and teaching units, besides that ultimately, themselves should be able to make new connections in this area. The item that is rarely found in the commonly used CLT.

The results of the research in order to study the second hypothesis showed that student's gender was not an effective factor in creating a significant difference between the post-test scores of English language motivational beliefs using education based on connectives theory. In other words, in the present study, the effectiveness of connectives approach on self-efficacy and task value was as same as about male and female students, and there was no significant difference between male and female post-test scores on education through this approach. However, it was expected that there was a significant difference in the effectiveness of the connectives approach on males and females. Because, according to (Kultawanicha, Koraneekija, & Na-Songkhlaa, 2015; Linnenbrink et al, 2016; Prince, 2017) how interacting with individuals, teachers, content, and digital space, as well as the quality of digital education, are two important factors in increasing academic self-efficacy and task value. G. Siemens (2005) and S. Downs (2012), also argue that in connectivism theory; attention to the diversity of beliefs and opinions in identifying nodes, networks, resources, available knowledge management, and how to establish connections, interactions and new connections, especially through digital space are considered. Accordingly, the present study was expected that diversity and how to interact with the human as well as inhuman, nodes, resources and networks, such as the use of multimedia and digital media, will be influenced by gender, and the learner's gender can play a role in interacting with the concept of linking learning. As it was observed, the hypothesis in the present study was not confirmed. It seems that one of the factors influencing non-approval of the second hypothesis, the lack of familiarity of some learners with nodes and information resources such as multimedia education, sites, social networks, digital space and, consequently, the lack of enough skills in new interacting, connecting and communicating through the space mentioned. So that the provided trainings in the short time interval in the present study have not been able to show the interactive effect of the type of education and gender of students.

Also, the prevailing atmosphere of education and learning English language at previous and current classes is designed to challenge education through active approaches such as education based on connectivism theory. So that, both boys and girls are equally benefited in this training. Finally, some legal restrictions imposed by the educational system of Iran on the use of digital space, such as the challenge of having or not having a mobile phone at school, or preventing the entry of learners into social networks by filtering some social networks along with other unknown factors are among the factors that challenges the impact of gender in interacting with education through connectivism in this short period of time. Therefore, the researcher has been confronted with

limitations in measuring gender differences due to the factors mentioned above. It is necessary in future researches, by providing adequate time and Follow up research, opportunities will be provided for the use of digital environment by learners in the field of education and learning English language ensure more certainty.

Based on the findings of this study, it is desirable Education will work towards using approaches that lead to higher motivational outcomes and, ultimately, learner's learning, and in this regard, the approach based on connectivism theory has a special priority in comparison with CLT approach. In fact, the use of a connectivism-based approach considering the human and inhuman interactions, digital space and multimedia education will ultimately lead to academic self-efficacy and higher level task value as well as academic achievement in EFL.

This study was conducted in English classes, it is suggested that in future researches, the effectiveness of a connectivism-based approach to other lessons such as sociology, empirical sciences, life skills should be considered. In fact, connectivism theory seems to have a positive impact on the motivational beliefs of the lessons mentioned.

References

1. Al-Harthy, I. S., & Aldhafri, S. S. (2014). The relationship among task-Value, self-efficacy and academic achievement in Omani students at Sultan Qaboos University. *International Review of Social Sciences and Humanities*, 7 (2), 15-22.
2. Alqurashi, E. (2016). Self-Efficacy in online learning environments: A literature review. *Contemporary Issues in Education Research*, 9(1), 45-52.
3. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice- Hall.
4. Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148.
5. Bandura, A. (2006). Adolescent development from an agentic perspective. In F. Pajares, & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 1-43). Greenwich, CT: Information Age Publishing.
6. Barnett, J., McPherson, V., & Sandieson, R. M. (2013). Connected teaching and learning: The uses and implications of connectivism in an online class. *Australasian Journal of Educational Technology*, 29(5), 685-698.
7. Bell, F. (2011). Connectivism: Its Place in Theory-Informed Research and Innovation in Technology - Enabled Learning. *International Review of Research in Open and Distance Learning*, 12(3), 98-118.
8. Bong M. (2001). Between and within Domain Relations of Academic Motivation among Middle and High School Students: Self- Efficacy, Task value and Achievement Goals. *Journal of Educational Psychology*, 9(93), 23-34.
9. Borna, M. (2013). Comparison of Effectiveness of mastery learning approach, community language teaching and combined method on English learning rate, English language instrumental motivation and academic self-efficacy in guidance third grade students in Saveh city. M.A" Thesis.
10. Downes, S. (2012). *Connectivism and Connective Knowledge; Essays on meaning and learning networks*. ISBN: 978-1-105-77846-9; Version 1.0 – May 19, 2012. This work is published under a Creative Commons License, Attribution-NonCommercial-ShareAlike CC BY-NC-SA.View Legal Code: <http://creativecommons.org/licenses/by-nc>
11. Downes, S. (2008). Places to go: Connectivism & connective knowledge. *Innovate: Journal of Online Education*, 5(1). <http://nsuworks.nova.edu/innovate/vol5/iss1/6>
12. Duke, B., Harper, G., & Johnston, M. (2013). Connectivism as a digital age learning theory. *The*

13. Gbollie, c., & Keamu, H. P. (2017). Student Academic Performance: The Role of Motivation, Strategies, and Perceived Factors Hindering Liberian Junior and Senior High School Students Learning. *Education Research International*. <https://doi.org/10.1155/2017/1789084>
14. Goldie, J. G. S. (2017). Connectivism: a knowledge learning theory for the digital age? *Medical Teacher*, 38(10), 1064-1069.
15. Golmommadnazard bahrami. Gh. R. (2015). Role of using internet on self-Efficacy, educational Motivation and educational achievement; Tabriz University of medical sciences. *Bimonthly of Education Strategies in Medical Sciences*, 8(4), 255-260
16. Hargreaves, D. H. (2004). *Learning for Life: the Foundations for Lifelong Learning*. Bristol: Policy Press.
17. Hemin Khezri, A., Lavasani, M. G., Malahmadi, E., & Amani, J. (2010). The role of self- efficacy, task value, and achievement goals in predicting learning approaches and mathematics achievement. *Procedia Social and Behavioral Sciences*, 5, 942-947.
18. Heydari Asl, E. (2015). Comparative study of grammar translation method (GTM) and communicative language teaching (CLT) in language teaching methodology. *Enternational Journals of Science and Research Methodology*, 1(3), 16-25.
19. Hymes, D. H. (1972). "On communicative competence" In J. B. Pride and J. Holmes Sociolinguistics. Selected Readings. Harmondsworth, 269-293. (Part 1).
20. Ibrahim, M. K., & Ibrahim, Y. A. (2017). Communicative English language teaching in Egypt: Classroom practice and challenges Issues in Educational Research, 27(2), 285-311.
21. Kibbe, T. (2017). The history of communicative language teaching (CLT) and its use in the classroom. *United States Military Academy during Academic Year 2017*. <https://www.usma.edu/cfe/Literature/Kibbe>
22. Kim, J., & Park, M. (2015). E-learning satisfaction by self-efficacy in higher education. *International Journal of Software Engineering and Its Applications*, 9(10), 109-116.
23. Koosha, M., & Yakhabi, M. (2013). Problems associated with the use of communicative language teaching in EFL contexts and possible solutions. *International Journal of Foreign Language Teaching and Research*, 1(2), 63-76.
24. Kultawanicha, K., Koraneekija, P., & Na-Songkhlaa, J. (2015). A Proposed Model of Connectivism Learning Using Cloud-based Virtual Classroom to Enhance Information Literacy and Information Literacy Self-efficacy for Undergraduate Students. *Social and Behavioral Sciences* 191, 87 – 92.
25. Lawanto, O., Santoso, H. B., Goodridge, W., & Lawanto, K. N. (2014). Task Value, Self-Regulated Learning, and Performance in a Web-Intensive Undergraduate Engineering Course: How Are They Related? *Journal of Online Learning and Teaching*, 10 (1), 97-111.
26. Lester, D. (2013). A Review of the Student Engagement Literature. *Focus On Colleges, Universities, and Schools*, 7(1), 1-8.
27. Linnenbrink-Garcia, L., Patall, E. A., & Pekrun, R. (2016). Adaptive motivation and emotion in education: Research and principles for instructional design. *Policy Insights from the Behavioral and Brain Sciences*, 3(2), 228-236. <http://dx.doi.org/10.1177/2372732216644450>
28. Lightbown, P., & Spada, N. (1999). *How Languages are Learned*. New York: Oxford University Press. Second Edition.
29. Maryslessor, A. O., Barasa, P. L., & Omulando, C. A. (2014). Challenges teachers face in the use of the communicative language teaching approach in the teaching listening and speaking lessons in Lugrari District, Kenya. *International Journal of Science and Research*, 3(9), 83-92.

30. Muhammad, Z. (2016). Pakistani government secondary schools students' attitudes towards Communicative language teaching and grammar translation in Quetta, Balochistan. *Published by Canadian Center of Science and Education English Language Teaching*, 9(3), 258-270.
31. Neuville, S., Frenay, M., & Bourgeois, E. (2007). Task value, self-efficacy and Goal orientations: Impact of self-regulated learning, choice and performance among university students. *Psychological Belgica*, 47(1), 95-117.
32. Noytim, U. (2010). Weblogs enhancing EFL students' English language learning, *Procedia Social and Behavioral Sciences*, 2 (2010), 1127–1132.
33. Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
34. Oxford, R. L. (2003). Language learning styles and strategies: an overview. *Learning Styles & Strategies/Oxford, GALA*, 1-25.
35. Ozan, O. (2013). Scaffolding in connectivist mobile learning environment: *Distance Education-TOJDE*, 14(2).
36. Palos, R., Munteanu, A., Costea, I., & Macsinga, I. (2011). Motivational and cognitive variables with impact on academic Performance Preliminary study. *Procedia Social and Behavioral Sciences*, 15. 138–142.
37. Papa, L. A. (2015). *The Impact of Academic and Teaching Self-Efficacy on Student Engagement and Academic Outcomes*. All Graduate Theses and Dissertations. <https://digitalcommons.usu.edu/etd/4361>
38. Pintrich, P. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82, 33-40.
39. Pintrich, P. R., Smith, D. A., Garcia, T., & McKeachie, W. J. (1991). *A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ)*. National Center for Research to Improve Postsecondary Teaching and Learning. Ann Arbor: University of Michigan.
40. Prince, B. (2017). Improving the self-efficacy of math learners using a direct and focused Approach to vocabulary clarification. A Project Submitted to the School of Graduate Studies of the University of Lethbridge in Partial Fulfillment of the Requirements for the Degree master of education.
41. Power, T. (2003). Communicative Language Teaching: The appeal and poverty of Communicative Language Teaching. *TESOL Quarterly*, 25 (7), 87-96. Retrieved November 1, 2004, from <http://www.btinternet.com/~ted.power/esl0404.html>
42. Richards, J. C. (2006). *Communicative Language Teaching Today*. Cambridge University Press.
43. Richards J. C., & Rodgers, T. S. (2003). *Approaches and methods in language teaching, 2nd Edition*, Cambridge: Cambridge University Press.
44. Sánchez-Rosas, J. & Esquivel, S. (2016). Instructional Teaching Quality, Task Value, Self-Efficacy, and Boredom: A Model of Attention in Class. *Revista de Psicología*, 25(2), 1-20. <http://dx.doi.org/10.5354/0719-0581.2017.44966>
45. Savignon, S. J. (1991). Communicative language teaching state of the art. *TESOL Quarterly*, 25, 261-275. <http://dx.doi.org/10.2307/3587463>
46. Savignon, S. J. (2007). Beyond communicative language teaching: What's ahead? *Journal of Pragmatics*, 39(1), 207-220.
47. Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26, 207-231.
48. Siemens, G. (2005). Connectivism: A learning theory for a digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 1-8.
49. Siemens, G. (2012). MOOCs are really a platform [Web log post]. Retrieved from

<http://www.elearnspace.org/blog/2012/07/25/moocs-are-really-a-platform>

50. Smart, J. B. (2014). A mixed methods study of the relationship between student perceptions of teacher-student interactions and motivation in middle level science. *Research in Middle Level Education*, 38(4), 1-19.
51. Tan, Z. X. (2016). An empirical study on the effects of grammar-translation method and task-based language teaching on Chinese college students' reading comprehension. *International Journal of Liberal Arts and Social Science*, 4(3), 100-109.
52. Veselá, K. (2013). Connectivism in foreign language education. *Education and Languages in Europe / Bildung und Sprachen in Europa*, 25(17), 320-325.
53. Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation: A developmental perspective. *Educational Psychology*, 25, 68-81.
54. Yazici, H., Seyis, S. & Fatma, A. (2012). Emotional intelligence and self-efficacy beliefs as predictors of academic achievement among high school students. *Procedia Social and Behavioral Sciences*, 15, 2319–2323.
55. Zepke, N., & Leach, L. (2010). Improving student engagement: Ten proposals for action. *Active Learning in Higher Education*, 11(3), 167-177.
56. Zimmerman, W. A., & Kulikowich, J. M. (2016). Online Learning Self-Efficacy in Students With and Without Online Learning Experience. *American Journal of Distance Education*, 30 (3): 180-191.
57. Zimmerman B. (2000). Self-Efficacy: An Essential Motive to Learn. *Contemp Educ Psychol*, 25(1), 82-91.
58. Zimmerman, B., & Pons, N. (1990). Student Differences In self- Regulated Learning. *Journal of Educational Psychology*, 14(82), 51-59.