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The Effect of a Cognitive Approach on EFL Students' Motivation in Terms of Task-Value, Control of Learning Beliefs, and Self-efficacy

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Abstract

This study examined the effect of the Cognitive Academic Language Learning Approach (CALLA) on the improvement of EFL students' motivation in terms of task value, control of learning beliefs, and self-efficacy. This mixed-methods study consisted of two phases: quantitative and qualitative. In the first phase which was a quasi-experimental design with two groups (experimental and control), all students responded to a motivation questionnaire. Qualitative data were collected using focus group interviews which were done with participants in the experimental group to obtain their perceptions of the effect of the intervention programme on the improvement of the three motivational constructs. While the quantitative data were analysed using descriptive statistics, t-test, Analysis of Variance (ANCOVA), and Multivariate Analysis of Variance (MANOVA), the interviews were transcribed and analysed qualitatively. The study revealed that CALLA was effective in increasing students' motivation in terms of task value, control of learning beliefs, and self-efficacy. Thus, CALLA can be recommended for L2 students in academic reading courses.

Keywords: Control of learning beliefs, EFL, self-efficacy, task-value, motivation.

تأثير النهج المعرفي على دافعية الطلاب للغة الإنجليزية كلغة أجنبية من حيث: قيمة المهمة وإدارة معتقدات التعلم والكفاءة الذاتية

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ملخّص

هدفت هذه الدراسة إلى اختبارتأثير النهج الأكاديمي المعرفي على تحسين دافعية الطلاب للغة الإنجليزية كلغة أجنبية من حيث: قيمة المهمة، وإدارة معتقدات التعلم، والكفاءة الذاتية. وتكونت هذه الدراسة الكمية والنوعية من مرحلتين .المرحلة الأولى والتي استخدم فيها البحث شبه التجريبي والمكون من مجموعتين (تجريبية وضابطة)، حيث أجاب الطلاب فيها عن استبانة الدافعية، والمرحلة الثانية، حيث جرى جمع البيانات النوعية باستخدام المجموعة البؤرية التي أجريت على المشاركين في المجموعة التجريبية بهدف الحصول على تصوراتهم لتأثير برنامج التدخل لتحسين مجالات الدافعية الثلاثة. وقد جرى تحليل البيانات الكمية باستخدام الأحصاء الوصفي، واختبارTوتحليل التباين، والتحليل متعدد المتغيرات للتباين، كما نُسِخَت المقابلات وحُلّلت نوعيا. وكشفت الدراسة عن فاعلية استخدام النهج الاكاديمي المعرفي في زيادة دافعية الطلاب من حيث قيمة المهمة، وإدارة معتقدات التعلم، والكفاءة الذاتية. وأوصت الدراسة باستخدام هذه الطريقة لطلاب اللغة الثانية في مساقات القراءة الاكاديمية.

الكلمات الدالة: إدارة معتقدات التعلم، اللغة الإنجليزية كلغة أجنبية، الكفاءة الذاتية، قيمة المهمة، الدافعية.

1. Introduction:

Both reading comprehension and motivation are multi-dimensional concepts and two of the most complex behaviours in second language (L2) contexts (Sigmon, 2019; Uccelli and Galloway, 2017). It has been proven that achievement of learning goals in any L2 context is affected by a sustained motivation (Loh, 2019). Although it has been shown that students' task-value, control of learning beliefs, and self-efficacy are important motivational constructs in learning and achievement (Lee, 2015), how these constructs can be increased has not been addressed adequately in previous studies, especially in content-areas in EFL contexts. We refer here to the context where students need to read several texts in English and develop academic language proficiency for the purposes of using language in explanation, analysis, and evaluation of texts (Bowers and Keisler, 2011).

Although motivation plays a key role in L2 learning (Hu et. al., 2019; Teng and Zhang, 2018), motivational theories have not fully succeeded in producing a good representation of the complexity of motivation due to the nature of motivation as a multifaceted concept. Similarly, reading is considered to be a complex process because it is an outcome of successful interaction among various factors which can belong to the reader, the text, and the activity of reading itself. Research has been conducted to report some of these factors which can be linguistic, cognitive, and/or sociocultural factors that might be implicitly or explicitly noticed in L2 contexts. Researchers have identified motivation as one of the major factors influencing learning in general and reading comprehension (Stutz et al., 2016). However, there is a paucity of research on how to increase task-value, control of learning beliefs, and self-efficacy in content-areas in L2 contexts, which may be attributed to the fact that researchers have put their efforts in examining the effects of motivation on reading comprehension and the correlation between reading intervention programmes and achievement (Ahmadi, 2017). Having realized the importance of task-value, control of learning beliefs, and self-efficacy for reading comprehension in the content areas, there is a lack of empirical clarity with respect to how a cognitive academic language programme can affect these three motivational constructs. This is especially apparent as regards EFL students studying academic reading courses.

To this end, we examined how the Cognitive Academic Language Learning Approach (CALLA) can affect EFL students' task-value, control of learning beliefs, and self-efficacy. The intervention programme we employed in this study brings together many recommended components of effective instruction in reading, including direct instruction of cognitive strategies and explaining to the students why a particular reading strategy is important and useful, and eliciting student interest to read. In the intervention programme, students were provided with a step-by-step model of explanations to help them engage in guided practice. The findings of the study have their contributions to EFL, content-area teaching, and English for Academic Purposes (EAP). Further, the findings of the study can offer instructional insights for teachers of English academic courses in EFL university contexts because the study can provide insights on how to motivate students to learn and develop reading skills in content-areas. Additionally, this study adds to the understanding of the interactions between some motivational constructs and reading comprehension in content area reading through the lens of an intervention programme that encompasses motivational elements and reading tasks. Thus, it can be contended that a uniquely important contribution of this study is the application of this intervention programme and its feasibility to be employed in L2 contexts.

2. Literature review

2.1. Task-value, control of learning beliefs, and self-efficacy

In this study, we focused on three motivational constructs (task-value, control of learning beliefs, and self-efficacy) which are based on some significant learning theories: self-regulated learning theory, expectancy-value theory, and cognitive social theory. In self-regulated learning theory, self-regulated learners are metacognitively, motivationally, and behaviourally active participants in their own learning, and they are aware of the processes that improve their academic achievement and how to monitor these processes by getting feedback from their previous learning processes. Further, students with successful achievement in academic settings are likely to have and use effective self-regulative learning (Zimmerman, 1997).

Expectancy-value theory is a motivational theory that makes association between the values which are placed on a goal and the expectancies for success. According to this theory, learners' choice, persistence, and performance can be explained

by understanding their beliefs about their competency and value towards particular learning tasks or exercises. It explains that both expectancies and values possessed by a learner directly affect his performance, effort, and persistence he puts on a goal (Wigfield and Eccles, 2000). In our study, the motivational scales used in the questionnaire are based on three general motivational constructs: expectancy, value, and affect (Pintrich, 1991). The expectancy component refers to students' beliefs that they can perform a learning task effectively. The other two subscales address assessing perceptions of self-efficacy and control beliefs for learning. The construct of task-value puts emphasis on 'Why should I do this task?'. According to Eccles (2005), task value is a motivational construct that refers to "a quality of the task that contributes to the increasing or decreasing probability that an individual will select it" (109). A learner performs tasks given to him when he places high value in that tasks. In other words, completion of a given task is dependent on the task value as perceived by the learner, not as it is seen by others. While students' beliefs concerning the degree to which they are confident in accomplishing an academic task is known as self-efficacy, the value of the given task as believed by students is known as task-value.

Students' self-efficacy and beliefs about the value of the task are important notions for understanding students' success or failure in academic achievement. It has been reported that self-efficacy is a positive predictor of performance outcomes in various academic tasks such as reading, and it refers to the ability to assess the learner's potential for completing a given task successfully (Coutinho, 2008). Previous studies have widely reported that self-efficacy affects both students' motivation and the efforts they are willing to devote to learning. Expectancy-value theory posits that the goals students hold in learning are a determinant of their self-efficacy and task value (Wigfield and Eccles, 2000). However, goals as conceptualized in this theory refer to broad purposes held by students in relation to studying and education in general, such as career goals. These goals are thought to be different in their scope and content from the goals conceptualized in achievement goal theory (e.g., Ames, 1992). Various studies have examined how motivation can be enhanced in reading classes. For example, Wu (2003) reported that Chinese EFL students' intrinsic motivation can be enhanced through some ways which she employed in her quasi-experimental study. These ways included a predictable learning environment, moderately challenging tasks, necessary instructional support, and evaluation that gives importance to self-improvement.

2.2. Related studies

In academic settings, such as undergraduate and postgraduate levels, students should exhibit a good command of academic skills in order to cope with the demands of academic tasks such as those involving advanced reading and writing skills (Karimi, 2018). Unquestionably, teachers of academic reading have their roles in helping students overcome their academic reading difficulties. This can be done through the implementation of intervention programmes and the support given to the students to motivate them to learn and develop reading comprehension. Yet, the major elements in such intervention programmes should be based on what has been reported in research in L2 learning. Researchers have proposed various approaches and intervention programmes and employed instructional practices in order to help students improve their reading comprehension and performance (Tsai and Shang, 2010). Some of these intervention programmes are CALLA (Mizumoto and Takeuchi, 2009; Rasekh and Ranjbary, 2003), Concept Orientated Reading Instruction (Guthrie et al., 1999), direct explanation of strategies (Duffy, 2002), and reciprocal teaching (Spörer et al., 2009). Authors reviewed studies that have employed intervention programmes in teaching reading and highlighted that need of trying intervention programmes that can explore the interaction between motivational constructs and the development of reading comprehension.

In various L2 contexts, explicit instruction of learning strategies was examined as an intervention programme that can improve reading and motivation. For example, Mizumoto and Takeuchi (2009) investigated the effectiveness of explicit instruction of vocabulary learning strategies among university Japanese EFL learners. They reported the effectiveness of explicit teaching of learning strategies on learning and use of strategies. Further, they showed that students' intrinsic motivation was measured to be high at the end of the intervention programme. In the EFL Iranian context, Ravari (2014) examined the effect of teaching reading strategies on reading comprehension and motivation. She found that explicit reading comprehension strategy training based on CALLA instructional model enhanced both learners' reading comprehension and motivation. The effect of CALLA on reading and motivation have been examined in EFL and ESL contexts, such as the Malaysian, Indonesian, and Iranian contexts. In the Malaysian ESL context, Marimuthu et al. (2011) showed that the

employment of an intervention programme which was based on CALLA led to improvement in reading comprehension performance, decrease in level of anxiety, and improvement of students' motivation towards language learning. In the Iranian EFL context, Karbalaei (2011) showed that the use of strategies based on CALLA improved students' motivation towards learning. In the Indonesian context, Rifa'i (2013) examined the effect of CALLA on the improvement of school students' reading comprehension on narrative texts and reported that there was an improvement in students' reading comprehension and an increase in their motivation.

Thus, the review of studies on the effect of particular intervention programmes can obviously reveal that these studies have not specifically examined how an intervention programme can improve specific motivational constructs such as task-value, self-efficacy, or control of learning beliefs. This is the gap that researchers in this study sought to respond to and fill.

3. Research Questions

Our study addressed two research questions:

1. What is the effect of the Cognitive Academic Language Learning Approach (CALLA) on task-value, control of learning beliefs, and self-efficacy among EFL university students in an advanced academic reading course?
2. How do EFL students perceive the effect of CALLA on motivation in terms of task-value, control of learning beliefs, and self-efficacy?

4. Method

4.1. Research design

This study adopts a mixed-methods research design in which two phases were employed: quantitative and qualitative. In the first phase, a quasi-experimental design which is the most typical design among experimental designs. Although this design differs from a true experimental design because it lacks randomization, it employs strategies to provide control over the extraneous variables (Ary et al., 2013). In this study, the participants were assigned in non-random manner to two groups: control and experimental. Both groups underwent pre-test and post-test, but only the treatment (intervention) group received the intervention programme.

4.2. Participants

The participants in this study were 122 EFL university students who were selected from a population of 202 students who registered for a compulsory Advanced Reading course at the Department of English and Literature, in a public university in Jordan. The students' ages ranged between 19-21 years old and all were also homogenous in terms of their mother tongue, cultural background, and the years of studying EFL (12 years) formally before joining the university. As all students were in three groups, we selected two groups randomly and assigned them as the intervention (62 students) and control groups (60 students). In fact, we employed the cluster sampling to carry out random selection of two clusters/groups from the total of three groups in the course. More specifically, simple one-stage cluster sampling was used in this study, where there is one stage of sampling and the clusters are selected by simple random sampling (Levy and Lemeshow, 2013). For focus group interviews, we purposefully selected 24 participants, who were in four focus groups with six participants in each. The selection of the participants took into account variations in their performance in reading comprehension test based on the data obtained from the course teacher at the end of the intervention programme. Furthermore, students' willingness to participate in the focus group interviews was considered. However, all those who were selected were cooperative and participated in the interviews.

4.3. Instruments

Data were collected using Motivation Questionnaire (MQ) which was adapted from the Motivated Strategies and Learning Questionnaire (MSLQ) (refer to Pintrich, 1991). The items in the questionnaire were 16 which covered three motivational constructs of motivation: task-value, control of learning beliefs, and self-efficacy (refer to Appendix A). The content of selected items were validated by a panel consisted of five experts from the Department of Educational Psychology and the Department of English in two different universities in Jordan (Hashemite University and National Irbid University). The panel confirmed the appropriateness of the items of the questionnaire. Reliability of the questionnaire was also investigated. Pearson reliability

coefficients for the domains were ranged between (0.79 - 0.90) and (0.86) for the questionnaire as a whole. We adopted a five-point Likert scale, ranged from 1 to 5 (1=Strongly disagree, 2=disagree, 3=Neutral 4=Agree and 5=Strongly agree). This questionnaire was administered before and after the intervention programme to the students in the experimental and the control groups. Focus group interviews enabled the researchers to gain insights into how Jordanian EFL students' task-value, control of learning beliefs, and self-efficacy changed after the intervention programme.

4.4. The intervention programme

The intervention programme employed in this study mainly depends on the fact that language is a complex cognitive skill that takes place through different stages. This complex process involves extensive practice and feedback to increase students' motivation to read academic texts. Based on CALLA framework (Chamot, 2009) and the motivational theories (Atkinson, 1957; Dörnyei, 1994), the intervention program was designed in this study to improve students' motivation to learn reading in content areas. CALLA together with the three motivational constructs of students' task-value, control of learning beliefs, and self-efficacy have been employed in the intervention programme. These three constructs were found to be necessary in the intervention due to their importance in students' motivation. Teaching materials, reading texts, and lesson plans were prepared for the instructor of the course. The focus was on how to help students to go through challenging reading materials in different content areas in 10 weeks which is the duration of the intervention programme. Topics of the lessons relate to academic curricula such as the arts, architecture, science, history, and technology. Explicit instruction of reading strategies such as making inferences, elaboration, and making predictions were carried out throughout the course. The intervention programme relies on the explicit instruction of learning strategies which are particularly important for students seeking to master both academic language and academic content simultaneously. In this approach, highly explicit instruction in applying strategies to learning tasks is gradually faded so that the students can begin to assume greater responsibility in selecting and applying their own preferred learning strategies. The sequence guides students towards increasing levels of independence, thus fostering attitudes of academic self-efficacy.

4.5. Procedures of data collection

First, ethical approval was obtained to collect data and implement the intervention programme. The teacher of Advanced Reading course was handed all lesson plans and the related materials to be used in teaching the course. Data collection including the implementation of CALLA intervention programme covered 12 weeks. In Week 1, the Motivation Questionnaire was given to the participants in the control and experimental groups before the intervention programme. The intervention programme was implemented in the experimental group and it lasted for ten weeks. In Week 12, the same questionnaire was given to the participants in the control and experimental groups at the end of the intervention programme.

4.6. Data analysis

Quantitative data were analysed using Statistical Package for the Social Sciences (SPSS Version 22, IBM 2016). The statistical analysis included (1) descriptive statistics (frequency, mean score, and standard deviation) and (2) inferential statistics (t-test, Analysis of Variance (ANCOVA), and Multivariate Analysis of Variance (MANOVA). While the descriptive statistics were used to obtain the differences in the means between the pre- and post-tests, the inferential tests were used to find out the effect of the intervention programme on the overall mean scores of students' motivation and the mean score of each of the motivation aspects (task value, control of learning beliefs, and self-efficacy). We used ANCOVA and MANOVA to determine whether there are any significant differences between the two independent groups (control and experimental) on a dependent variable (overall scores of students' responses to the 16 items of the motivation questionnaire) (George and Mallery, 2016). One of the major advantages of MANOVA is that it is the best alternative for other statistical tests such as multiple regression in analysing non-equivalent group data in which compared groups might not be identically matched (Karabinus, 1983).

To code students' responses to the interview questions, we developed a priori coding themes for each motivational construct based on the research questions of the study and the results of the questionnaires. We had three major themes which represented the three motivational constructs examined in the study (task-value, control of learning beliefs, and self-efficacy). We summarized all the coded segments in a table based on the themes used for analysis. This is followed by a summary for students' responses based on the three themes which represented the three motivational constructs.

5. Results

5.1. Research question one

As presented in Table 1, which shows the baseline of students' scores for both control and experimental groups at pre-test stage, the intervention and the control groups do not show any significant difference (M (SD) = 36.37 (7.31) and 37.15 (5.01) respectively, t-value = 0.684, p-value =.495). Furthermore, the outcome of Levene's test presented in Table 2 reflects the absence of equal variances in motivation (represented by the three constructs) because there were significant differences (F = 8.69, p-value =0.004). Thus, the null hypothesis of equality of variance was rejected. Consequently, the degree of freedom (df) was adjusted from 120 to 104 and significance and t-value of equality of variance not assumed were considered.

Table 1: Pre-test mean scores of respondents in control and experimental groups

Group	Mean	Std. Deviation	N
Experimental	37.15	5.011	62
Control	36.37	7.309	60
Total	50.70	13.196	122

Table 2: **Independent sample t-test for scores of dependent variables at pre-test**

Levene's test for equality of variances		t-test for equality of means						
F	Sig.	T	Df	Sig. (2-tailed)	Mean difference	SE Difference	95% CI of the difference	
							Lower	Upper
8.687	0.004	0.684	104.057	0.495	.778	1.138	-1.478	3.035

ANCOVA test was used in order to obtain the differences between the mean scores of pre- and post-tests, while controlling the pre-test scores as a covariate. As presented in Table 3, students' motivation mean scores (± SD scores) of the intervention group (56.6 ± 12.84) is higher than that of the control group (44.60 ± 10.59). As presented in Table 4, the tests of between-subject effects reveal that there is a significant difference between the control and the experimental groups in the overall motivation post-test scores after controlling for the pre-test scores as a covariate (F (1,119) = 31.303, p-value <.001). Furthermore, Figure 1 demonstrates the remarkable improvement in students' post-test scores compared to pre-test ones. These results reflect the effectiveness of the intervention programme.

Table 3: Mean ± SD of intervention and control groups at post-test for motivation

Group	Mean	Std. Deviation	N
Control	44.60	10.593	60
Experiment	56.60	12.843	62
Total	50.70	13.196	122

Table 4: Tests of between-subjects effects for overall scores of motivation

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	5474.575a	2	2737.287	20.887	.000	.260
Intercept	3648.413	1	3648.413	27.839	.000	.190
Motivation_pre	1086.116	1	1086.116	8.288	.005	.065
Group	4102.288	1	4102.288	31.303	.000	.208
Error	15595.204	119	131.052			
Total	334629.000	122				
Corrected Total	21069.779	121				
a. R Squared =.260 (Adjusted R Squared =.247)						

In order to understand the effect of the intervention programme on the three motivational constructs (task value, control of learning-beliefs, and self-efficacy), MANOVA was used. As shown in Table 5, the results of test of between-subjects effects reflect the effect of the intervention programme on each of the three constructs of motivation separately. The results reveal that there was a significant difference between the scores of students in the intervention and the control group on each of the three motivational constructs. For the task value, the results are F (1, 120) = 33.56, p =.000, ηp2=.219; for learning-beliefs construct, they are F (1, 120) = 16.42, p =.000, ηp2=.12; and for self-efficacy, they are F (1, 120) = 29.20, p =.000, ηp2=.196 (refer to Table 5). This reflects that the intervention programme we employed affected positively students' task value, control of learning-beliefs, and self-efficacy. Based on the values of *F* in Table 5, it can be understood that the motivational construct that was highly affected by the intervention programme was task-value, followed by self-efficacy and control of learning beliefs.

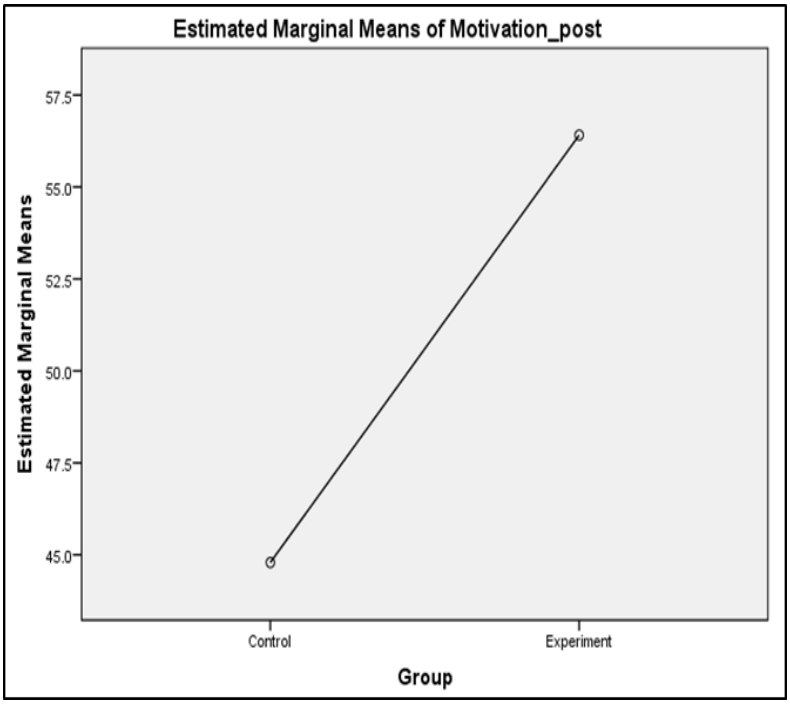

Figure 1: Overall motivation in post-test scores

Table 5: Tests of between-subjects effects for the three motivational constructs

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Task_value_post	763.279a	1	763.279	33.559	.000	.219
	Learning_beliefs_Post	193.288b	1	193.288	16.418	.000	.120
	Self_efficacy_Post	610.838c	1	610.838	29.202	.000	.196
Intercept	Task_value_post	43575.345	1	43575.345	1915.877	.000	.941
	Learning_beliefs_Post	19699.583	1	19699.583	1673.255	.000	.933
	Self_efficacy_Post	43974.116	1	43974.116	2102.274	.000	.946
Group	Task_value_Post	763.279	1	763.279	33.559	.000	.219
	Learning_beliefs_Post	193.288	1	193.288	16.418	.000	.120
	Self_efficacy_Post	610.838	1	610.838	29.202	.000	.196
Error	Task_value_post	2729.319	120	22.744			
	Learningbeliefs_Post	1412.785	120	11.773			
	Selfefficacy_Post	2510.089	120	20.917			
Total	Task_value_post	47269.000	122				
	Learning_beliefs_Post	21375.000	122				
	Self_efficacy_Post	47277.000	122				

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Total	Task_value_post	3492.598	121				
	Learning_beliefs_Post	1606.074	121				
	Self_efficacy_Post	3120.926	121				

5.2. Research question two

In the focus group interviews, students revealed that CALLA helped them to increase their motivation in terms of the three constructs examined in this study: task-value, control of learning beliefs, and self- efficacy. The analysis of the qualitative data generated three themes: (1) students' perception of the effect of the intervention programme on motivation, (2) students' beliefs towards themselves as learners, and (3) perception about the effect of the exercises and tasks employed in the intervention programme on their motivation. Excerpts 1-4 below reveal that students perceived that their motivation at the end of the intervention program improved due to the intervention programme. Most of the interviewees confirmed that the intervention programme motivated them to learn more words and encouraged them to read more academic reading texts. Furthermore, Excerpts 1-4 revealed how the intervention programme motivated the students and gave them more interest in the academic reading course. In Excerpts 1 and 2, Lamees and Faiza expressed that the intervention programme motivated students and encouraged them to encounter academic challenges with the interest to learn and improve reading skills. Faiza added that the intervention programme promoted students to participate effectively in the classrooms. She further added that the intervention programme helped the students to like the academic reading classes and made them eager to learn more. Basmah in Excerpt 3 pointed out that the intervention programme was a useful programme for her because it motivated her to read academic texts.

Excerpt 1 [Focus Group One]

Interviewer: First, I want to know whether CALLA strategies were motivating. How? Was this program motivating?

Lamees: Yes, it makes me motivated. Actually, it affected me academic reading easier to me, now I want to read more academic reading texts to know more words and a lot of new things. It is no like boring as it was before.

Excerpt 2 [Focus Group Two]

Faiza: The motivation, the stimulation in this approach, can really make the students stimulated and motivated and challenge. So, they like or want to participate to read they want to make something, it keeps them alert and focused in the lecture.

Excerpt 3 [Focus Group Three]

Basmah: This is the first time we are exposed to a program like this. It was helpful, it expanded our knowledge and it motivated me to read academic reading.

Excerpt 4 [Focus Group Four]

Rehab: It motivated me to depend on myself reader. I feel I can solve the problems. In traditional class, I do not participate.

The interviews also revealed students' beliefs towards themselves as learners. We focused on their perceptions about themselves as learners and how they believe that they can achieve their learning goals successfully. In Excerpts 5-8, most of the interviewees pointed out that they became more self-confident after being taught using the intervention programme. In Excerpts 5, Basmah declared that they became more self-confident to use cognitive strategies they learnt and trained on how to use in the intervention programme.

Excerpt 5 [Focus Group Three]

Basmah: We started gaining self-confidence, we have a role in the class the teacher just helps us and we participated. At the beginning we were shy to participate. After a short time, we started participating and trying to test ourselves in challenging texts.

Students' perceptions about the usefulness of exercises that were given in the Advanced Reading course was examined in the in the interviews. Excerpts 6-8 below can give evidence regarding the students' perceptions about the exercises and tasks they had to perform. The interviewees mentioned that the instructor used various strategies and gave theme exercises and tasks that focused on finding synonyms, paraphrasing, making inferences, use of image, guessing the meaning, locating the main idea in a text, and making predictions. As shown in Excerpt 6 below, Deema listed some of the reading strategies she was trained on and used in the reading course. Furthermore, Lamees in Excerpt 7 asserted that the exercises and tasks were helpful to all students because they helped them to improve their reading skills and to understand academic reading texts and unfamiliar words.

Excerpt 6 [Focus Group One]

Interviewer: What else? [Interviewer means other exercise used in class.]

Deema: Guessing meaning, finding the main idea. Also asking for specific answer and paraphrasing.

Excerpt 7 [Focus Group One]

Lamees: I think all students were happy with exercises and they learnt a lot from these exercises... but doing these exercises needed hard work from students to help them understand texts and learn words.

Excerpt 8 [Focus Group Three]

Aroob: The strategies in this course helped me increase my vocabulary. Remembering the meaning of the new words became easier to me as I know many ways to organize my information.

6. Discussion

This study has demonstrated that CALLA increased Jordanian EFL students' motivation in terms of task-value, control of learning beliefs, and self- efficacy. This was evident in the results of the analysis of data obtained through motivation questionnaire which was employed before and after the intervention. These quantitative results were also supported by the analysis of qualitative data (focus group interviews) conducted with 24 participants in the experimental group after the intervention programme. The intervention programme motivated the students to learn new words and encouraged them to read more academic texts. Thus, the intervention programme improved students' abilities and control that they would need to perform well in academic reading tasks. This is an interesting finding because this reflects that students have developed the responsibility for their learning. This study revealed that task-value increased at the end of the intervention programme, which reflects that students' interest in doing the reading tasks have positively changed.

Among various intervention programmes that have been employed for teaching reading and for motivating students in L2 contexts, our intervention programme does not only encompass explicit learning strategies instruction in the daily academic reading lessons, but also provides students with self-evaluation part, which is crucial in raising the students' awareness towards their strengths and weaknesses in the learning process. False students' beliefs towards themselves as learners would demotivate them. As self-evaluation is a component of the intervention programme, the study revealed that the intervention programme enabled the participants to enhance their abilities to evaluate their reading progress and performance. During the intervention programme, the participants learnt how to evaluate their learning and understanding, which helped them to develop the ability to be self-confident and to increase their self-efficacy.

It can be interpreted that the integration of the cognitive strategies represented by different learning tasks in the intervention programme has resulted in the improvement of students' motivation in terms of task-value. In fact, students' lack of self-confidence which can be the outcome of repeated failures would prevent them from engagement in doing the reading tasks. However, students' positive attitudes towards the learning tasks and their interest in using the new strategies can motivate them to acquire and persist in using and transferring strategies to other tasks (Berkeley et al. 2011, 18). Our study intended to improve students' motivation so that they become independent learners. So, in the intervention programme, the students were encouraged to use the strategies they learnt in their future learning tasks. Taking into account the fact that reading process is basically based on cognitive dimensions, attention was given to the various dimensions that help in examining the effect of CALLA on the students' motivation. Previous studies have shown that students' success and failures

is represented in their academic achievement (Chapman et al., 2000), where students' self-concept about themselves is important (Borkowski et al., 1990). Thus, the improvement in the students' overall motivation in this current study can be attributed to their increased awareness towards learning. This is consistent with the students learning beliefs towards themselves. Students' positive general perceptions about themselves as learners and how they believe can help them achieve their learning goals successfully. Most of the participants in the focus group interviews expressed that they became more self-confident after being taught using the intervention programme. Thus, CALLA employed in this study was effective in boosting students' beliefs in becoming more capable of learning or performing at a certain level for the purpose of achieving their goals.

The increase in students' motivation after the implementation of the intervention programme can also be attributed to the fact that they gained an important perspective towards their abilities in learning. We believe that the reading tasks given to the students along with the use of learning strategies helped them to increase their self-efficacy. These results are supported by the opinions of the interviewees in the focus group interviews who showed how they perceived the usefulness of the exercises and tasks that were given in the intervention programme. Students revealed that they were engaged in the exercises and tasks they did. Furthermore, similar to Taghinezhad et al. (2015), our study showed that the intervention programme increased EFL students' self-efficacy. This can be explained through understanding that most of these exercises focused on tasks that are associated with the strategies they were trained on. These strategies which were integrated in the intervention programme included finding synonyms, paraphrasing, making inferences, use of image, guessing the meaning, locating the main idea in a text and making predictions. Examples on using strategies that increased self-efficacy are mentioned in Schunk and Zimmerman (1997) and Schunk and Mullen (2012).

The findings of our study are in agreement with some previous studies that examined the effect of some intervention programmes targeting the improvement of L2 students' motivation in reading classes. In terms of increasing motivation, the findings of our study are similar to studies that have employed intervention programmes based on CALLA. Some of these studies are Karbalaei (2011), Marimuthu et al. (2011), Mizumoto and Takeuchi (2009), Ravari (2014), and Rifa'i (2013). However, compared to these studies, our study differs in its focus because these previous studies have not particularly examined the effects of an intervention programme on task-value, control of learning beliefs, and self- efficacy. Rather, previous studies examined how an intervention programme affected students' motivation in general, without specific attention to definite motivational constructs.

7. Conclusions, practical implications and recommendations

The current study was carried out in response to the lack of studies employing effective instructional programmes that can enhance students' motivation. Research in the Jordanian EFL context has highlighted the academic reading problems of undergraduate students. The results of the current study indicated that CALLA as a content-based method of teaching was utilized successfully in the Jordanian EFL context to enhance undergraduates' motivation in terms of three motivational constructs: task-value, control of learning beliefs, and self-efficacy.

The findings of the study have some good practical implications to motivate EFL students, content-area teaching, and English for Academic Purposes (EAP).

Future studies can examine the effect of CALLA on anxiety. Further research may also focus on motivational regulation strategies, taking into consideration the sociocultural factors affecting learning.

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