

# The Effect of Using the Connectivist Approach on Developing Secondary Stage Students' Cross-Cultural Awareness and Translation Performance

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## Abstract

The present study attempted to examine the effect of using the connectivist approach on developing secondary-stage students' cross-cultural awareness and translation performance. The study comprised thirty-two first-year secondary stage students enrolled in El-Jalawea Institute, Sohag Governorate. The study adopted the quasi-experimental design. Thirty-two participants were randomly assigned to one group, and they were taught through a suggested web-based program. Data were gathered and analysed using both quantitative and qualitative instruments. A pre-post online translation and cross-cultural awareness test, an online questionnaire, and a web-based training program/blog were used in the study. Findings indicated that participants showed significantly higher levels of translation performance samples in the areas of reading comprehension, writing fluency, Computer-assisted Translation (CAT) tool usage, text analysis, and terminology search. Findings also showed significantly higher levels of cross-cultural awareness in both cognitive and affective aspects compared to students' achievement before the treatment. Participants also showed evidence of transition from word-for-word to meaning-for-meaning translation. The development of the students' performance was demonstrated by multiple measures that imply that the suggested web-based program is effective for developing secondary-stage students' translation performance and cross-cultural awareness skills.

**Keywords:** Connectivist Approach, Translation Performance, Cross-Cultural Awareness

## Introduction

Connectivism represents a dominant theory in the 21<sup>st</sup> century as it sees that the human mind is a network that adapts to its surroundings where people can comprehend knowledge and learning. According to connectivism, learning is known as the process of making connections among several nodes where knowledge can be found. Consequently, the role of the students has changed from mere receivers of knowledge and bits of information to more active and creative roles. Therefore, they need to adapt to the changing requirements of the 21<sup>st</sup> century by making new connections, identifying patterns, and learning via making decisions. Connectivism is a theory that is as a response to constantly changing information, the evolution of social networks, e-learning, and technological upheaval.

Connectivism has arisen as a theory of student learning in the twenty-first century. George Siemens developed the idea in the year 2005, arguing that traditional learning theories are no longer appropriate or sufficient in a digital world where information and knowledge are continually changing. The theory also questions the conventional wisdom that learning occurs only within a person, emphasizing the significance of links between multiple sources of knowledge, or nodes. These nodes comprise an ever-expanding and dynamic knowledge network. (Siemens 2005). Building on Siemens' work, Downes (2009) described connectivist learning as learning that is built on conversation and interaction within one's network, and that has evolved from "being a transfer of content and knowledge to the production of content and knowledge" (p. 12). Several of Siemens' (2005) main principles of connectivism have clear ties to information literacy:

- Learning and knowledge rest in the diversity of opinions.
- Learning is a process of connecting specialized nodes/information sources.
- The capacity to know more is more critical than what is currently known.
- The ability to see connections between fields, ideas, and concepts is a core skill.
- Currency is the intent of all connectivist-learning activities.
- Decision-making itself is a learning process.

Multicultural congregation will only occur via multi-lingual comprehension and here comes the importance of the translation. Translation is a human activity that helps us communicate. According to Ali (2013:138), it is "the activity that has one or more specific purposes, which is to serve as a cross-cultural bilingual communication vehicle among people." It plays an integral part in bridging the gaps between people and conveying messages and knowledge. Ali (2013:139) defines translation as the communication of the meaning of a source-language text by means of an equivalent target-language text. The connectivist theory became a response to communication and technology boom nowadays, which led to cultural fusion and approximation. The culture was defined, according to the University of Minnesota Library (2022), as the symbols, language, beliefs, values, and artefacts that are part of any society.

As this definition implies, culture is made up of two essential components: ideas and symbols on the one hand, and artefacts (material items) on the other. The first category, known as "nonmaterial culture," consists of a society's values, beliefs, symbols, and language. The second form, known as material culture, encompasses all tangible items in society, such as tools and technology, clothes, dining utensils, and modes of transportation. Language is the first of several components. As long as we agree on how to interpret these words, a shared language and thus a shared society are possible. The same article also imagines that a person is lost in another country speaking another language, he/she does not have a dictionary, and smartphone's battery has died. Assuredly, he/she will be in deep water.

It has long been debated whether the number of cultural components is sufficient or not. Some name them six, while others count them as seven, and others say they are ten. There is an agreement that language, customs, values, social organization, material objects, arts and literature, symbols, marriage and family, food, taboos, society, geography, education, and religion. Humans are social beings. People that live together develop shared habits and behaviours, ranging from favoured ways of childrearing to preferred means of procuring food. Many individuals in modern-day Paris shop at outdoor markets on a regular basis to purchase what they need for their evening meal, purchasing cheese, meat, and vegetables from various speciality booths. (Kaur A. & Kaur M., 2016)

Cultural awareness is meant as "Someone's understanding of the differences between themselves and people from other countries or other backgrounds, especially differences in attitudes and values."

(Online Collins Dictionary, n. d.). In practice, translation necessitates exceptional linguistic and cultural abilities to decipher the meaning, which is frequently couched in specific terms that fluctuate in meaning locally and culturally, both synchronously and diachronically. It is pretty uncommon to come across a term that means something distinct in one culture while also meaning something else in another. This is due to a variety of factors that might be attributed to ideology, attitude, association, pragmatics, or otherwise conveyed. Culture is analogous to an iceberg, with a small portion (external or surface culture) visible like the tip of the iceberg, such as food, clothing, art, dance, and so on, while a significant portion (internal or deep culture) is hidden beneath the surface, such as idiom, collocation, proverbs, and so on. There is a tripartite relationship between translation, cross-cultural awareness and connectivist approach as a requirement of the age of technology and knowledge acceleration. Translation performance and culture awareness cannot be separated, as they form a holistic structure to improve the translation process and generally improve L2 acquisition. Students reach an age in which their minds are apt to discern the cultural value of others, are able to appreciate the value of the constituents of the nation's civilization, and can distinguish the experiences of other peoples and civilizations. Translation and culture are inextricably linked since culture gives life to language. The cultural context of both the source and destination languages has a significant impact on their meanings, particularly in commercial translation. A phrase that appears to be simple to translate may include cultural nuances that, if not taken into account, might have the opposite meaning intended. As a result, translation without a thorough understanding of the cultural context can be hazardous, especially where semantics are essential. (Schaeffer, 2015).

As such, in the age of globalization, at least one foreign language should be learnt for better communication, understanding of any business environment, and employment opportunities. In the present global market, to get hired by a multi-national company, besides speaking a foreign language, one has to acquire the best practises in international milieus, spot cross-cultural differences, overcome ethnocentrism, develop powerful multicultural communication skills, be well acquainted with codes of ethics, etc. Western individuals consider studying the ancient history of nations and exposure to multicultural information, team building, and communication skills to be crucial aspects of developing cross-cultural awareness. (Constantin, 2013; Constantin et al., 2015)

It is a major concern for learners to draw distinctions between necessary and unnecessary information. Rapid developments in technology have necessitated the advancement of entirely new approaches, such as connectivism, to learning about the knowledge-building process. Since we cannot possibly experience everything on our own, as the cognitive frame would be too great, other individuals (the network) become our source of knowledge. Currently, in a world characterised by competitiveness and coping with the world of work and future job opportunities, there are basic skills needed in a knowledge-based society pursuant to the recommendations of the Conference Board of Canada (2016), and a cornerstone of the Siemen's Connectivist Approach, such as fundamental skills, like communicating, managing information, using numbers, thinking, and solving problems; Personal management skills, attitudes, and behaviours that drive one's potential for growth, like taking responsibility, adaptability, continuous learning, and professional development, and teamwork skills that involve team working s in projects and tasks. In addition, the OECD (2016) added two sets of skills comprising cognitive skills, including literacy and numeracy, and soft skills, represented in communicating, influencing, and negotiating, in the workplace.

### **Aim of the study**

The main purpose of the study is to investigate the effect of the suggested programme based on the connectivist approach on developing secondary stage students' cross-cultural awareness and translation performance.

### **Context of the Problem**

To the researcher's knowledge, no sufficient local or worldwide studies have covered ways of secondary stage students' mastery of translating texts appropriately with a great attention to the cultural context of both source and target languages. Hence, the current study tried to shed light on how to teach translation with consideration of cultural context under the modern means that facilitate searching for the right lexis and accurate grammar.

In this context, translation plays an increasingly important role in and for society. It enables people to communicate ideas and cultures regardless of the different languages involved. Since the researcher is a teacher of English, he noticed that first-year secondary school students fail to translate Arabic to English and vice versa texts properly. They consider translation to be word-for-word conversion and the like. They create morphological and syntactic mistakes such as incorrect word order, agreement violation, tenses misuse, and faults in the usage of relative clauses, passive sentences, and so on. By analogy to the usual rules, they occasionally overgeneralize the rules. They might add the past tense suffix *-ed* to irregular verbs or the plural suffix *-s* to irregular nouns, for example.

No hints or tips are laid out in textbooks. No approaches are adopted while teaching translation. Text translation is only a mere question that can be easily found at the end of the exam paper. The researcher and other teachers noticed that the translation question was often ignored or missed. Moreover, when translating, answering a dialogue, or writing a paragraph, they do not consider cross-cultural awareness or ideological differences between both languages. They have no idea of English values, principles, beliefs, skills, symbols, rituals, or environment. They have no information about cultural differences. Therefore, many expressions and terms are misplaced or ignored. This act drew the researcher's attention to the problem of lacking translation performance.

This research totally depends on connectivist theory, it mainly focuses on the provable facts, observation, note-taking, and statistical analysis of students' performance in the pre- and post-administration of tests. Therefore, after the end of this research, the expected outcome is to:

- Increase students' knowledge of translation basics.
- Maturate of English Arabic text translation for secondary stage students.
- Develop cross-cultural awareness.
- Foster students' use of modern technology.
- Increase secondary stage students' researching components.
- Promote problem-solving, and decision-making.
- Maximize students' utilization of social media, and web 2.0 technologies to enhance translating texts as well as spot cross-cultural manifestations.
- Grow up positive attitudes towards translation and cultural awareness.
- Shed light on the role of successful communication to get information from sources other than paper books.

### Study Significance

This study investigates the effect of the Connectivist Approach on helping EFL students develop their English-Arabic text translation and cross-cultural awareness. The study is thus significant because it is designed to explore in-depth whether students produce better translations of texts when working according to modern technology and forming networks and nodes than when working in the traditional classroom environment. The use of the Connectivist Approach provides an opportunity for them to identify and comprehend more about translation strategies, tools, theories, and types as well as ways of being acquainted with spotting cultural awareness and conveying meaning to their domestic culture. Since the current study is deemed the first study designed specifically to explore in detail the effectiveness of the CA for Secondary stage students, the findings will pave the way for further studies to be carried out globally as well as in other Egyptian secondary-stage students. It proposes a systematic program in teaching translation and proposes reliable testing instruments for evaluating translation performance.

### Study Design

The researcher adopted a quasi-experimental One-Group Design to test the hypotheses of the study. The researcher used a suggested program based on the "Connectivist Approach" with the group and administered a pre- and post-test to identify its effect on students' ability to produce correct translations and be aware of cross-cultures before and after studying the program. Since it is not expected to be a real face-to-face classroom, and the use of a connectivist approach does not necessitate the existence of classrooms, which is considered one of its merits, the study is being implemented in a different milieu than the classroom. That is why the researcher used the One-Group Design.

### Instruments

#### A Questionnaire of Students' Concept of Cross-Cultural (CC) Awareness

This questionnaire was employed to determine the attitudes of secondary-stage students toward cross-cultural awareness. The questions included in the questionnaire were determined by reviewing the previous literature related to the area of CC awareness skills such as Abdullah (2016), Abdallah. (2010) and some other scales that are available on the internet (Yidiz, M, & Kiziltas Y.(2018) and Syphatura (2016). The questionnaire was composed of **20** questions. **Five** questions covered the English History and Language attitudes; **Five** questions aimed to identify the attitudes towards the UK Social and Media Aspects; **Five** questions dealt with English Academia and Education system; and **Five** questions attempted to acknowledge the Overall CC Awareness concept such as accepting others, adequate understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices; how own attitudes and beliefs are different from those of other cultures and communities; exhibiting curiosity about what can be learned from the diversity of communities and cultures; articulating the influence of one's assumptions. The time determined for the questionnaire was 35 minutes.

### Validity of the Questionnaire

The questionnaire was submitted to a panel of jury specialized in the field of EFL curriculum and instruction to determine (a) the degree of importance of each item, (b) the appropriateness of the items



suggested to Egyptian EFL secondary stage students as well as the linguistic stating of each item. The jury consisted of:

1. Specialists in the field of English as a Foreign Language (EFL) and methods of teaching, Applied Linguistics, and Cultural studies.
2. EFL regional supervisors and Directors of the Department of Education at the Ministry of Education and/or Al-Azhar Al-Sharif.
3. Senior English teachers in the schools of the Ministry of Education and/or Al-Azhar Al-Sharif.

The jury indicated that the questionnaire was valid and the items included were clear and adequate. After analyzing the jury responses, the researcher selected the agreed-upon items .

### **Reliability of the Questionnaire:**

The Questionnaire was administered in a pilot study on a sample of 30 secondary-stage students in the first and second years. Their answers were analysed using different statistical methods. Results of the statistical analysis showed that the Questionnaire is highly reliable as shown in the following table.

### **A Pre-post-test in Developing Translation Performance and Cross-Cultural Awareness**

A pre-post translation and cross-cultural awareness test was constructed and administered by the researcher. It was used prior to the program implementation to determine the level of the group before starting the experiment, and hence the progress achieved by the group may be attributed to the program they were exposed to. As a post-test, it was administered to investigate the effectiveness of the proposed program based on the connectivist approach in developing secondary-stage students' CC awareness and translation performance.

The test was piloted in a sample of 32 students among first-year secondary stage students in Sohag Governorate to determine the time of the translation and CC awareness test and the difficulty of the items included in the test. Therefore, thirty-two students were selected for the pilot study. These students were randomly selected from one secondary stage school in Sohag governorate. Students of the pilot study did not belong to the group of the study. They were excluded from the whole experiment.

During piloting the test, the researcher calculated the time taken by all students, and the average was found to be around 90 minutes. Thus, the test time was 90 minutes. This time was estimated in the following way: The total time taken by all students divided by the total number of students:  $3000 \div 32 =$  **nearly 95 mins**

### **Description of the Test**

Based on the given results laid out in Chapter 2, the proposed translation performance test was designed to be an online test consisting of two separate parts. The first online part comprises three sections based on three translation subskills: Analytical skill (two questions), Searching skill (one question), and Computing and Computer-assisted Translation (CAT) tools Skill (one question).

Part Two consists of two sections: Cross-cultural awareness (3 questions) and sentence translation (2 sentences to be translated from Arabic into English and the same with English into Arabic). Reading Comprehension, writing, and translation theories and strategies skills are implicitly covered in the translation questions since the students read, write, and determine the best strategy during the translation process itself and do not need separate questions. Some questions exemplified model answers before the

beginning of some subsections of the test to ensure students' understanding of the test rubrics. The time allowed for the whole test is one and a half hours.

### **Item-Discrimination**

The best criterion of the effect of an item is its ability to separate students who vary in their degree of knowledge of the material tested and their ability to use it. If one group of students has mastered the material and the other group had not, a larger part of the former group should be expected to correctly answer a test item. Item discrimination can be regarded by the difference between the percentages of correct answers for these two groups. Item discrimination can be calculated by ranking the students according to the total score and then selecting the top 27 percent and the lowest 27 percent in terms of the total score. It is calculated, for each single item, by reckoning the percentage of students in the upper and lower groups answering correctly. The item discrimination (ID) formula is:

**Item Discrimination (ID) = (Upper Group Percent Correct) – (Lower Group Percent Correct)**

Over 25% is considered a good item. Accordingly, some items were removed and other items were modified.

### **Scoring**

Fifty marks are assigned to each part. Twelve and a half (12.5) marks for searching, 12.5 for the text analysis, 12.5 for CAT tools in the first part and 12.5 for cross-cultural awareness, and 12.5 points for sentence translation in the second part. The Reading Comprehension, Writing, and Translation Theories are marked by 37.5 marks (12.5 marks each). The test totaled 100 marks.

### **Validity of the test**

A pilot study was conducted about a month before the administration of the programme to estimate the validity and reliability of the test. A group of 32 secondary stage students was selected randomly representing different levels of achievement; high, middle, and low. The pre and post-tests of translation were administered randomly, so some students had to take form A (Odd questions) of the test (16), while the rest (16) had to take form B (Even questions) of the same translation test. Both forms were scored by two different raters.

Validity of the test: the members of the jury supported the suitability of the test for its objectives and the applicability of the test to the age and achievement level of the subjects.

### **Calculating the overall test Reliability:**

The reliability of the overall test was calculated using the following methods:

Alpha Cronbach was calculated for the test and it was 0.91, a high value that generally indicates the accuracy and reliability of the test as a means of measurement and is therefore reliable. Another teacher corrected the test and a correlation coefficient between the two correction marks was calculated. It was found that the correlation coefficient was (0.97). It is a high value indicating a very strong correlation, accuracy, and reliability of the test and it can be relied on as a means of measurement.

### **Translation and CC Awareness Scoring Rubric**

The rubric was constructed in the light of reviewing literature and previous studies such as Allen (2014),

Ayhan and Turkyilmaz (2015)

The elements covered are:

- **Translation Theories** (Students' answers in translation questions are expected to show that they have a grasp of the topic, its details, categories, themes, and the literature related to the topic).
- **Reading Comprehension** (Students' answers in translation questions are expected to show that they identify and assess the importance and quality of all supporting data/details or evidence due to thorough comprehension, determining the main idea, and drawing conclusions).
- **Writing Fluency** (Students' work of translation is expected to be free of errors in grammar, usage, and mechanics that would distract the reader from the content, Writing includes a beginning, middle, and end with clear transitions and a focused closure.)
- **Researching and Terminology Search** (Students are expected to develop a terminology search strategy in online dictionaries and search engines with keywords and synonyms for their keywords. Students find many sources. Students can list some criteria of quality to look for and state whether their sources have such qualities. Students safely deliver correct conclusions and answers).
- **Textual Analysis** (Students are expected to analyze a translation text and make a thorough and accurate selection of relevant evidence; Interpret evidence accurately, convincingly, and systematically to reach sound and correct translations).
- **Computing and CAT Tools** (Students are expected to use appropriate CAT tools, TMs, TBs, and technological resources and fully use computers, and Microsoft Applications to efficiently translate texts and sentences from English to Arabic and vice versa).
- **Cross-Cultural Awareness** (Students are expected to demonstrate an understanding of the complexity of elements important to members of another culture concerning its history, values, politics, communication styles, economy, or beliefs and practices; Demonstrate evidence of adjustment in own attitudes and beliefs because of working within and learning from a diversity of communities and cultures; Promote others' engagement with diversity).

### Validity of the Rubric

The scoring rubric was submitted to a panel of a jury for validating its preliminary version. They approved the rubric and suggested modifying the wording of some descriptors to maintain consistency. Their suggestions and modifications were considered in the final version of the aforementioned scoring rubric.

### The Study Programme

It is to investigate the effect of using a connectivist approach on developing secondary stage students' cross-cultural awareness and translation performance.

### Content of the Programme

Connectivism is based on four major categories (autonomy, connectedness, diversity, and openness) that had clearly been mentioned and applied during teaching the training program. Through the program, students are encouraged to learn to take a decision on translations on their own and try to find the best terminology and write it down to share it with peers. However, they were still connected to each other and with the outer world via modern technology in a try to find impeccable solutions to unsolved questions. The teacher takes the responsibility to counsel students to consult each other or appeal to



other sources to settle their translations. The program provided a variety of resources that are a good beginning to form an opinion and answer questions. The program effectuated the diversity component via facilitating using web-based search, reading blogs, speaking with a native, delving into a WebQuest, consulting a dictionary, perusing a wiki, watching a YouTube video, a video cast, or a vlog, listening to a podcast, reviewing a journal or magazine...etc. The program, in depending on the connectivist approach, heartened the students to consult as much as information channels to reach the most accurate results. These channels are not limited to schools, but they may be any knowledge-gaining hub even if it is a friend, a peer, a family member, a librarian, a TV show...etc. All the four components of connectivism were actively involved in each unit of the training program.

#### **A. Translation Theories and Definitions**

- Identifying translation definitions and theories.
- Being acquainted with examples of sound translations.
- Learning more about equivalence.
- Being familiar with terms like machine translation, post-editing, the source language, and target language...etc.
- Valuing the role of translation as a component of learning a language and a means of communication.

#### **B. Reading Comprehension**

- reading for gist, and main ideas
- reading for details.
- identifying the meaning of new words and expressions using one or more of the structural analysis clues; prefixes, suffixes, roots.
- using the context to identify the meanings of new words.

#### **C. Researching Skills**

- using bilingual dictionaries for looking up meanings of new words.

#### **D. Analytical Skills**

- identifying beginnings and endings of ideas in the text and the relationships between these ideas.
- identifying the “best” meaning that fits into the context.

#### **E. Writing Skills**

- independently creating a keyword outline, main topic, and supporting points as a basis for the essay.
- creating a written composition that contains [number of] paragraphs of at least [number of] sentences each, an introduction, conclusion.
- developing their ideas for assigned essays.
- writing and edit a short paragraph that addresses a given subject in the general curriculum.
- increasing writing skills to (grade/proficiency level) in the area(s) of (Ideas and Content, Organization, Voice, Word Choice, Sentence Fluency, and Conventions) as measured by (analysis of writing samples, diagnostic survey, spelling inventory).
- writing the main idea with some supporting details on a topic.

#### **F. Computing and CAT tools**

- identifying the basic definitions of a computer and CAT tools.
- using proper computer commands such as starting and shutting down a computer, opening, closing, and saving files, and use Word processing, PowerPoint, and Excel applications.
- translating simple files by using MemoQ ( the CAT tool they studied in the course).

## **Module 2: Cross-cultural Awareness**

### **A. What is a Culture and Multiculturalism**

- defining what culture is
- learning the components of a culture.
- assimilating differences between nations and peoples.

### **B. Western-Eastern Cultural Differences**

- identifying the cultural differences between the Eastern and Western cultures.
- respecting others' customs and habits.

### **C. Inter-Cultural Effect between Arabic and others**

- learning the effect of the Arabic language and culture on other nations.
- discussing the Arabic legacy due to Arabic conquests.
- perusing lexis taken from Arabic into English and other languages.
- respecting the difference while keeping the identity.

### **D. History and Language**

- knowing more about the origin of the English language.
- appreciating English culture and history.
- acquainting the important national symbols, heroes, and significant English characters.
- locating UK and Britain correctly on the map.

### **E. Social and Media Aspects**

- getting normalized with the English social system such as cuisine, family, media power, gender roles, taboos, animal representations, communications, meetings, and visits.
- assimilating differences between English and Arabic cultures.

### **F. Academia and Education**

- listing the differences between Arabic and English education systems.
- enhancing their understanding of English culture.
- tracing the pre-university stages of education.

## **Program validity**

The program was given to EFL specialists and technology specialists who approved it and suggested some modifications (See criteria for judging the program validity, appendix (F)). Their suggestions were considered in the final version.

## **Piloting the Program**

Piloting the program was conducted two weeks before the actual experimentation of the web-based program to determine the validity and reliability of the tools used in the present study. The researcher randomly chose a sample of secondary-stage students in Sohag Governorate schools and Azharite Institutes for piloting the CC awareness and translation performance test. Validity for all the tools was determined by consulting a panel of EFL professors, teachers, head teachers and inspectors, while the internal validity was decided by using internal consistency. The reliability of all the tools, on the other hand, was determined by the test-retest method. Piloting the tools revealed that all the tools were valid and reliable for the actual experimentation.

## Assessment

Assessment is a part of the learning process. Its objectives are to identify the amount of achieving the specified objectives of the suggested program. To test the impact of the program on developing the skills, the researcher used formative and summative evaluation. A Formative evaluation is conducted to assess the learners' progress and provide necessary feedback on the participants' performance. Formative evaluation (Extra Activities) comes at the end of each unit to provide continuous feedback. The Extra Activities are carefully selected provided that every unit covers one or more means of modern technology such as blogs, vlogs, wikis, encyclopedias, YouTube, podcasts, WebQuest...etc. The researcher intended to vary the techniques of every unit to enable students to acquire knowledge and search for it via manifold and varied techniques. For example, in one unit the students were given some native- speaker Facebook accounts and they are required to make a conversation with them and write down or present orally the questions and answers. Another example was to download or borrow from the library translation books and answer simple questions. The procedures of formative assessment consisted of providing students with a set of questions at the end of each unit to be solved at home or during sessions. They differed according to the intended objectives to be measured. They took the form of open-ended questions, puzzles, homework, WhatsApp, and Facebook assignments. Besides, the researcher developed lesson-led activities as a formative assessment at the end of each lesson either as homework, consolidation, or as a review of the previous lesson. The researcher differentiated assessment as well. He varied techniques of assessment by integrating mobile learning strategies, and written, visual, oral, and aural exercises

The second assessment is summative. This is conducted at the end of the treatment period. A Translation and Cross-cultural awareness Test is administered to measure the achievement of the intended objectives at the end of the teaching-learning process.

## Results

The study aims to investigate the effect of implementing the suggested programme on developing secondary-stage students' cross-cultural awareness and translation performance. The effect was calculated using T-test (refer to Appendix H for means and raw scores of students in the tests). To find out if the differences in the impact the students achieved on the post-test were significant or not, "Paired Sample t-test" analyses were conducted to test the set hypotheses of the study.

**Hypothesis 1 (H01)** predicted that there is no statistically significant mean difference between the students' concept towards each component of the Cross-cultural Awareness (Affective aspect) before and after the training programme in translation and cross-cultural awareness. To verify this hypothesis, the paired-sample t-test was used to detect the significance of differences between the pre- and post-application. Analysis of data using the t-test showed that the mean difference between the concept before and after the experiment is significant, favouring the Questionnaire post-administration, as shown in the following table. This is illustrated in table 1.

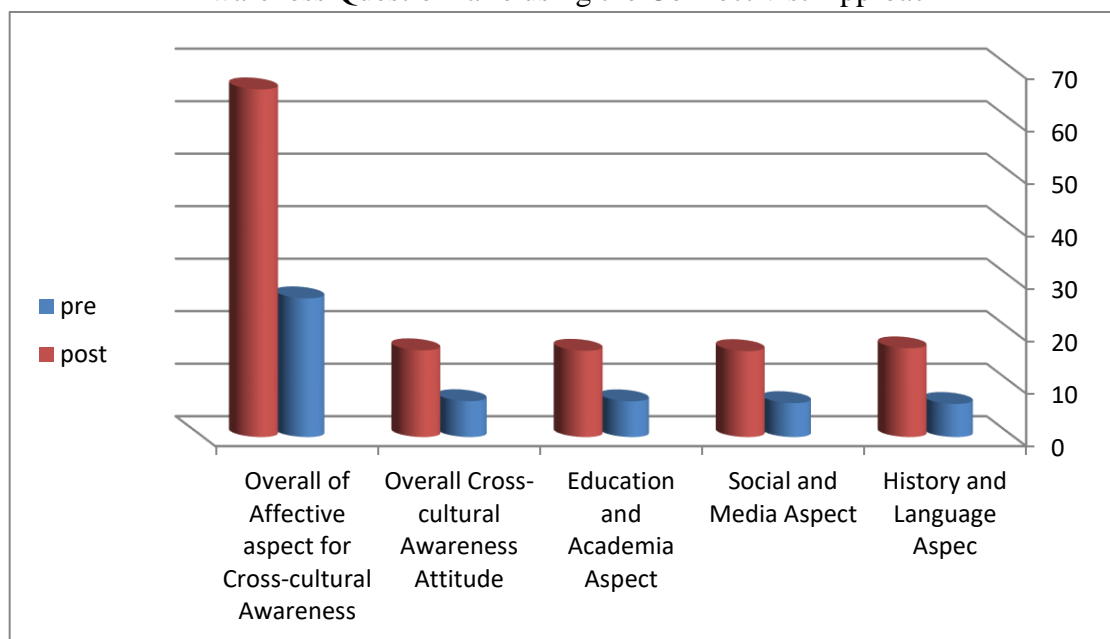
**Table 1** T-test analysis for the differences of the Ss' mean scores towards the affective aspect of the cross-cultural awareness components (History and Language, Social and Media Aspects, and Education and Academia, Cross-cultural Awareness Concept) before & after the administration of the Cross-cultural Awareness Questionnaire using the Connectivist Approach (N=32 & DF=31)

Component	Mean		Std. Deviation		t- test value	Sig.	Effect size ( $\eta^2$ )
	pre	post	pre	post			
History and Language Aspect	6.31	16.91	2.01	1.71	23.493	0.00	0.947
Social and Media Aspects	6.47	16.38	1.78	2.04	16.903	0.00	0.902
Education and Academia Aspect	6.81	16.44	2.12	2.12	18.892	0.00	0.92
Cross-cultural Awareness Attitude	6.84	16.53	2.07	2.14	18.608	0.00	0.918
Overall Affective Aspect for Cross-cultural Awareness	26.44	66.25	7.07	6.76	22.747	0.00	0.943

These results clarify question three of the questions of the study; the null hypothesis is refused and the alternative hypothesis is confirmed as there is a statistical mean difference between the cross-cultural awareness concept of the subjects of the study before and after the training programme in translation and cross-cultural awareness in terms of four components (History and Language; Social and Media and Education; Academia Aspects and Overall CC Awareness). Moreover, results show that although students' concepts towards cross-cultural awareness were high and positive in social and educational aspects, the training programme did make a high level of effect on all components. This may be evidence that students are somewhat convinced with studying all cultural aspects laid out in the training program on developing cultural awareness required for sound translations.

The following graph shows the difference between the mean scores of the students of the study group in the pre and post-administration of the Questionnaire of the affective aspect of CC awareness as a total score and its constituent components:

**Figure (1)** Differences in the Ss' mean scores towards the affective aspect of the cross-cultural awareness components (History and Language, Social and Media Aspects, and Education and Academia, Cross-cultural Awareness Concept) before & after the administration of the Cross-cultural Awareness Questionnaire using the Connectivist Approach



**Hypothesis 2 (H02)** predicted that there is no statistically significant mean difference between the achievement of the students of the study in the pretest of translation and cross-cultural awareness in the posttest. Analysis of data using a t-test showed that the mean difference between the cross-cultural awareness (cognitive aspect) before and after the experiment is significant, favoring the posttest's, as shown in the following table. To verify this hypothesis, the paired-sample t-test was used to detect the significance of differences between the pre and post-application. This is illustrated in Table 2.

**Table 2** T-test results for the significance of differences between the mean scores of the participants' 'Overall Cross-cultural Awareness (cognitive aspect) on the pre and post-administration of the Translation Performance test

performance	Mean		Std. Deviation		t- test value	Sig.	Effect size ( $\eta^2$ )
	pre	post	pre	post			
Cross-Cultural Awareness (Cognitive aspect)	3.5	9.72	2.96	2.89	6.876	0.00	0.604

Table (2) shows that the significance level (sig) is less than (0.01). This indicates that there is a statistically significant difference at the 0.01 level between the mean scores of the study participants on the pre and post-administration of the Translation Performance and Cross-cultural Awareness (cognitive aspect) test in terms of the overall **Translation Performance and Cross-cultural Awareness (cognitive aspect)** components in favour of the post-test administration. This means that the H02 should be refused. Consequently, the alternative hypothesis is to be accepted. The following figure shows the difference between the mean scores of the study participants in the pre and post-administration of the Test on the cognitive aspect of CC awareness:

**Figure (2)** Differences in the students' (Ss) mean scores towards the cognitive aspect of the cross-cultural awareness before & after the administration of the CC Awareness Test using the Connectivist Approach

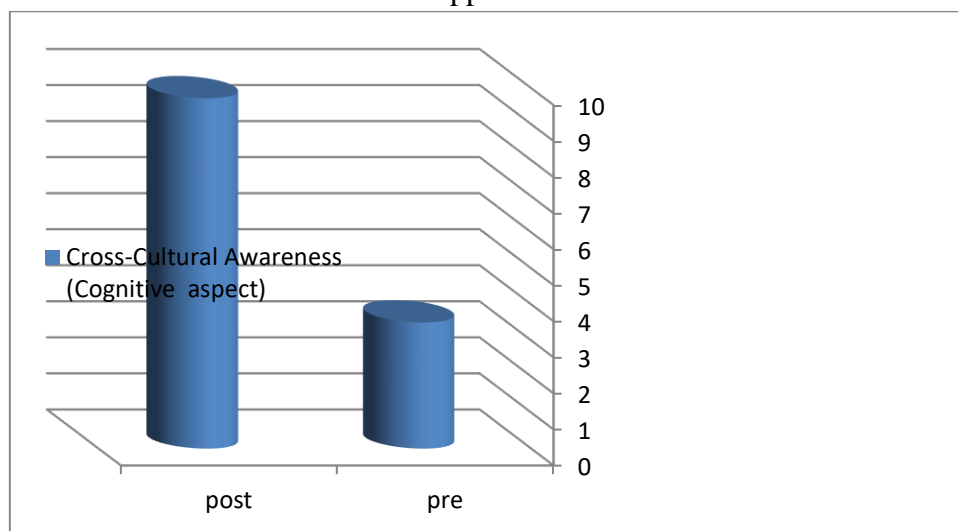


Table (2) results show that the calculated effect size, expressed by the Eta squared, equals 0.604, which is higher than 0.232, which is a very large effect size value. This indicates that the suggested program



based on the Connectivist Approach has a large effect on developing Cross-cultural Awareness (cognitive part) for Secondary Stage Students "The study participants".

**Hypothesis 3 (H03)** predicted that there is no statistically significant mean difference between the achievement of the students of the study in the pre-test of translation components and that in the post-test. The null hypothesis has been postulated by the researcher since it is a new program to be implemented in this kind of study to develop such variables and the no-effect is the primary hypothesis until otherwise confirmed. To verify this hypothesis, the paired-sample t-test was used to detect the significance of differences between the pre- and post-administration of the test. Analysis of the data given by the two raters and by the mean scores of the two raters, using Paired Sample t-test showed that the mean difference between the achievement of the group in the pre-test and that of the post-test was significant. This is illustrated in **Table 3**.

Table 3 T-test Results for the significance of Differences Between the Mean Scores of the Participants' each component (Theories and Definition, Reading Comprehension, Writing, Computing, CAT Tools, Text Analysis, Researching and Terminology search, and Sentence Translation) on the Pre and Post Translation Performance Test (N=32) and (DF= 31)

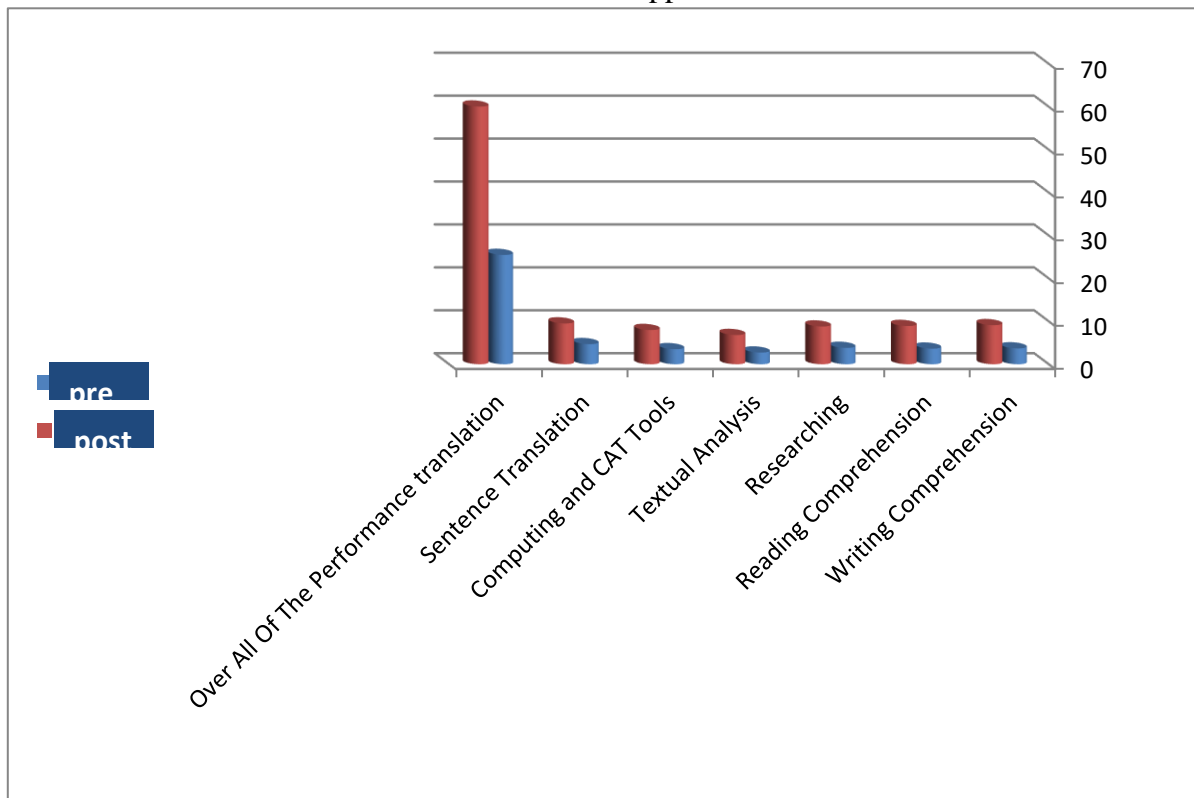
performance	Mean		Std. Deviation		t- test value	Sig.	Effect size ( $\eta^2$ )
	pre	post	pre	post			
Translation Theories and Strategies	3.44	8.94	2.84	2.49	9.184	0.00	0.731
Writing Comprehension	3.69	9.10	2.49	2.47	9.760	0.00	0.754
Reading Comprehension	3.63	8.91	2.5	2.46	8.761	0.00	0.712
Researching	3.81	8.79	2.55	2.73	7.373	0.00	0.637
Textual Analysis	2.72	6.81	2.11	2.1	6.559	0.00	0.581
Computing and CAT Tools	3.5	7.97	2.5	2.89	7.948	0.00	0.671
Sentence Translation	4.69	9.5	2.89	2.34	7.335	0.00	0.634
Overall Translation Performance	25.47	60.03	14.6	12.46	12.622	0.00	0.837

**Results of Hypothesis 3 (H03)** provide an answer to question one of the questions of the study presented in the introduction; as there are statistically significant mean differences between the achievement of the subjects of the study in the pre-test and that in the post-test, favouring that of the post-test in terms of translation's seven components (Definition and Theories, Reading Comprehension, Writing, CAT Tools, Research and Terminology, Text Analysis and Sentence Translation). The aforementioned table shows the significance level for all components is less than 0.01. This indicates that there is a statistically significant difference at the 0.01 level between the mean scores of the study participants on the pre- and post-administration of the Translation Performance and Cross-Cultural Awareness test in terms of (Theories and Definition, Reading Comprehension, Writing, Researching, and Terminology search, Computing and CAT Tools, Text Analysis and Sentence Translation) in favor

of the posttest. This means that the H03 should be refused in all components. Consequently, the alternative hypothesis is to be accepted.

The following graph shows the difference between the mean scores of the study participants in the pre and post-administration of the Test regarding the translation performance as a total score and its constituent components:

**Figure (3)** Differences in the Ss' mean scores towards the translation performance as a total score and its constituent components before & after the administration of the Cross-cultural Awareness Test using the Connectivist Approach



Based on Table (3), it is apparent that the calculated effect size, expressed by the Eta squared is higher than 0.232, which is a very large effect size value. This indicates that the suggested program based on the Connectivist Approach has a large effect on developing Cross-cultural Awareness (cognitive part) for Secondary Stage Students "The study participants".

**Hypothesis 4 (H04)** predicted that there is no statistically significant mean difference between the students' scores towards the overall translation Performance and Cross-cultural Awareness (Cognitive aspect) before and after the training programme in translation and cross-cultural awareness. To verify this hypothesis, the paired-sample t-test was used to detect the significance of differences between the pre- and post-application of the test. Analysis of data using a t-test showed that the mean difference between the scores before and after the experiment is significant, favouring the post-test's, as shown in the following table. This is illustrated in Table 4.

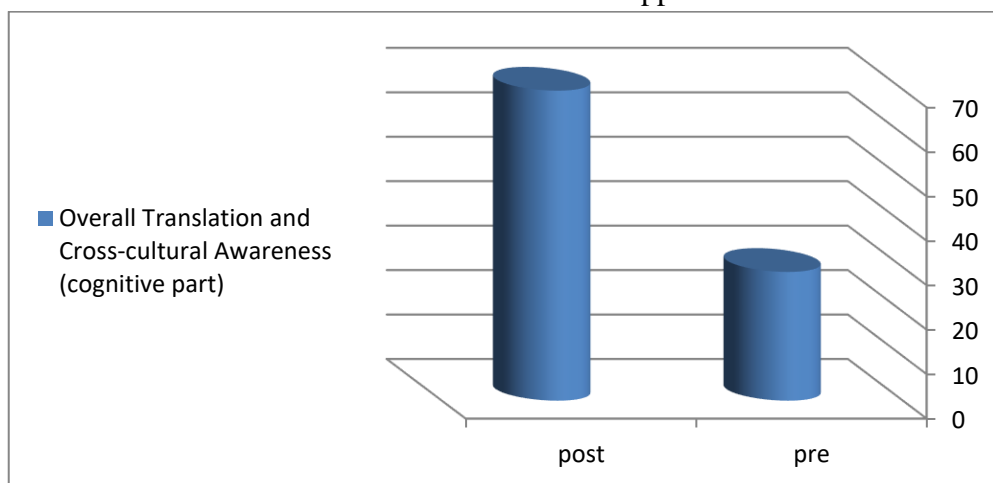
**Table (4).** t-test analysis for the differences of the Ss' scores towards the Overall Translation and Cross-cultural Awareness (cognitive part) before & after the administration of the pre-post-test using the Connectivist Approach

performance	Mean		Std. Deviation		t- test value	Sig.	Effect size ( $\eta^2$ )
	pre	Post	pre	post			
<b>Overall Translation and Cross-cultural Awareness (cognitive part)</b>	<b>28.97</b>	<b>69.75</b>	<b>16.65</b>	<b>14.66</b>	<b>12.790</b>	<b>0.00</b>	<b>0.841</b>

Table (4) shows that the significance level (sig) is less than (0.01). This indicates that there is a statistically significant difference at 0.01 between the cross-cultural awareness concepts of the subjects of the study before and after the training programme in translation and cross-cultural awareness in terms of the Overall Translation and Cross-cultural Awareness (cognitive part) in favour of the post-administration. This means that the H04 should be refused. Consequently, the alternative hypothesis is to be accepted. From Table 4, it is clear that the calculated effect size, expressed by the ETA squared, equals 0.841, which is higher than 0.232, which is a very large effect size value. This indicates that the suggested program based on the Connectivist Approach has a large effect on developing Overall Translation Performance and Cross-cultural Awareness (cognitive part) for Secondary Stage Students "The study participants". This means that the training web-based program has a great impact on developing students' translation performance and cross-cultural awareness and hence enhancing their text translation ability.

The following graph shows the difference between the mean scores of the study participants in the pre and post-administration of the Test regarding the translation performance and cross-cultural awareness (cognitive part)

**Figure (4)** Differences in the Ss' mean scores towards the translation performance and cross-cultural awareness (cognitive part) before & after the administration of the CC Awareness Test using the Connectivist Approach



After the study was conducted, the “t” test was used in analysing the data obtained. The scores of subjects in all the tests were analysed and compared. Results revealed and confirmed a remarkable

degree of improvement in students' achievement in the post-test in translation performance. There was a positive correlation between subjects' level of achievement in the post-test of translation performance and a positive correlation between students' achievement in translation and their attitudes towards cross-cultural knowledge and understanding.

### **Discussion of Results**

The present study was conducted to measure the effect of a training or instructional programme based on the Connectivist approach to develop translation performance and cross-cultural awareness for secondary-stage students. The results of the study confirmed that there was a remarkable increase in students' levels of achievement after the experiment. The connectivist components, connectedness, diversity, openness and autonomy, were clearly evident in the students' performance. The means of scores in the post-test and the obtained t-value in the pre-post-test analyses were significantly favouring the post-test results. Results also showed that there is a statistically significant mean difference between students' cross-cultural awareness attitudes before and after the experiment, favouring that of the post-administration. There was also a significant mean difference between students' achievement before the experiment and after participating in the training programme, favouring their scores in the test in the post-administration in each of the translation components. These remarkably high gains obtained by the subjects in the post-test can be attributed to the effect of using the suggested training programme in translation performance and cross-cultural awareness.

In the first result, students' level of translation performance has been raised in general, however, what deserves attention is that students' achievement in the text analysis part of the test was lower in these two areas than in the other sections of the test. This is simply due to the lack of knowledge students have about translation theoretical concepts and their application to translation tasks. This also shows that students used to deal with a text to translate directly without the necessary planned analytical skills required for the task, and that they have developed quite a good command of using these components, and have almost mastered how to report conscious thinking before translating. Connectivism had a great effect in students' autonomous work and diversity of sources which helped them produce perfect translations.

Students' achievement in reading comprehension, writing, researching, CAT tools, text analysis and terminology, was also remarkable in the post-test. Students' answers showed that the comprehension questions after each passage helped them develop an understanding of the details of the passage, and this understanding helped them in translating the passage as a whole. Researching and terminology skills were quite easy for students to develop since the program introduced new and fast ways of exploring meaning using smart devices, which most of them own. They got rid of the notion of the traditional dictionary, which they neither possess nor comprehend, as the only key to help in searching difficult vocabulary and sentences. This remarkable change shows that students became more aware of the importance of some components they thought they had nothing to do with the translation, namely, computing, writing, and reading comprehension. Students made use of the training program to extend their knowledge in ways of translating a sentence or a text, different theories of translating a text, using modern means to the right way to research for the best translations, and getting rid of the notion of "A translator is a dictionary". Connectivism unleashed students' abilities to uncover new ways of searching and validating any knowledge.

As the second result indicated, students' attitudes towards cross-cultural awareness were quite high, and due to the training programme, their attitudes became even higher. Comparing the results of this study with the results of the pilot study (Appendix B) that was applied to a sample of secondary-stage students, it is surprising how students develop bad habits and careless attitudes towards awareness of others' cultures, assimilating the culture of the difference without any degradation. Depending on the results of the present study, students showed clear advances towards inter-cultural effects between Arabic and Western languages, especially English, Western-Eastern differences in culture, understanding English habits, customs, and educational system and to what extent it is different from ours, social life there, including family, jobs, foods, greeting, the Queen position, freedom...etc. even though the section History and Language was somewhat difficult and unclear, especially since it is full of intervention with Latin and German, the origin of English from Angels and Saxons to the modern man, the unity of many countries under the crown, and the geographical difficulties they are not accustomed to since this is the first time they are exposed to such information. Hence, it made a change in their minds but to a medium degree. Some reasons can be attributed to these, such as the one-size-fits-all curricula, the careless attitude of the teachers and their lack of basic knowledge, obsolete strategies of teaching, abandonment of modern ways and use of technology, and finally the unstable and unreliable scoring rubrics.

Students in the present study reported (in the questionnaire) that they appreciated cross-cultural awareness, and that they began to understand the importance and necessity of admitting others' cultures in general and English culture in specific and its crucial role in developing sound and correct translation. The openness provided by connectivism could make them able to find and verify any information related to language such as talking to a native or consult a mentor online. They also liked the examples and the proverbs in the course, which is different from what they used to have and see with other students. They also felt the importance of reading about others' cultures and became aware of the components of a certain culture. They also stressed the role of cultural context when translating a text from English into Arabic or vice versa. The students showed a great interest in language studies and translation, and some of them wished to major in translation studies in their future undergraduate studies.

Students' achievement in general language proficiency has also been raised. This indicates that language learning is a comprehensive process, that all the language components serve each other, and that proficiency in one component will, in most cases, lead to proficiency in others. It should be noticed, however, that the progress achieved by the students after the training programme is not big, though significant. This is simply because we need more than just a training course in one area of language instruction to develop students' proficiency in the language. The present study and the suggested programme help motivate students to improve their level, but they need more than just one training programme. There should be an umbrella and intertwined web of language courses that should be administered to achieve remarkable and considerable improvements in secondary-stage students' language proficiency.

The results of the present study confirm and coincide with the results obtained by the studies of Abdellah (2010), Karimian & Talebinejad (2013), Syahputra (2016), Mohamed et al. (2019) and Al-Jarmouzi, A. et. al. (2019).

## Conclusions

EFL secondary education students are given considerable opportunities to peruse translation theories, reach untouchable points of arguments related to multicultural schooling, discuss best translation



techniques, defend their opinions in text translating exercises. They are also allowed to be acquainted with various translation skills that lead to sound text translation, and excellent language command, further their information and add to their knowledge about enhancement of reading and writing skills. Students sought to identify undiscoverable ways of learning such as podcasts, blogs, vlogs, search engines, WebQuests, peer-discussion, parent-consulting, etc. utilizing CA-based Web-led strategies and various technological means. Therefore, the findings of the present study indicate that arguing via activating multiple ways of knowing should be implemented.

Throughout the discussion of the results, it has become clear that the CA-based Web-led program may have a significant role in developing the students' translation performance and cross-cultural awareness. This was reflected in the significant "t" value of the test as a whole and of each separate sub-skill in the test. All the values were highly significant. The CA-based Web-led program was effective for many reasons.

The positive effect of the suggested CA-based program on developing translation performance and cross-cultural awareness for secondary-stage students was attributed to the program's addressing of the students' different bits of intelligence, learning profile, readiness, areas of interest, and learning style via vivid and lively activities on the internet. As students learnt differently, the researcher, as a teacher could fully encourage meaningful and enjoyable learning as much as possible for all the participants involved. To sum up, since most educationalists and educational institutions, universities, or schools have often sought to help students develop sound translation accomplishment and self-confidence, CA theory provides a theoretical foundation for recognizing the different strategies and activities for students as well as giving academic help to the teachers and educators to consider the students' interests and recruit every possible activity to teach students inside and outside the classroom. Approaching and assessing learning in this manner allows a wider range of students to successfully participate in learning and social interaction actively.

### **Recommendations**

In light of the results of the study, the following recommendations are made:

- The connectivist approach in education should be extensively used in the learning and teaching processes.
- There should be clear-cut, and agreed-upon standards for designing translation and CC awareness content, activities and tests in the curricula.
- Translators' workshops should be encouraged as stimulating language teaching techniques.
- Setting translation questions in the final exam should follow a systemic and objective approach, by stating the scoring rubrics and the rating scales.
- Translation theories and definitions and cross-cultural subjects should be integrated into the secondary stage English syllabi in the form of graded activities by linking them to the practical translation examples and questions.
- New technologies and techniques are recommended to be implemented for the proper teacher education programmes such as using computer software, electronic dictionaries, CAT tools training sessions, online translators and teacher forums, and Facebook pages.
- Modern teachers should be like magicians, attracting and motivating all students to reach knowledge themselves and utilize the internet under their controlled supervision and mentoring.

- EFL classes need to devote more time to translation and cross-cultural knowledge classes to allow students to widen their knowledge and hence be more open to the world.
- EFL students should be trained to work in environments that are suitable and appealing to them and in class in both homogenous heterogeneous groups simultaneously. Hence, they can be activated and stimulated in the learning process.
- An Assessment has to be varied, not only paper one. Students may be assessed electronically via computer or the Internet. Oral Evaluation and interviews may be other means of evaluation.
- Education officials, curriculum planners, developers, parents, and guardians should be aware that education became not only in schools but also on the internet, streets, live chats...etc. whatever the means, they are able to learn and foster positive attitudes towards deschooling and extra-curricular activities.

### Suggestions for further research

1. A study is needed to implement the connectivist approach for developing listening and reducing listening anxiety for secondary-stage students.
2. A study is needed to explore the difficulties faced by translation students; idiomatic translation, collocations, untranslatability, technical translation, and the ethics of translation.
3. A study is suggested to validate different stages of multi-cultural awareness scale that can be used with different levels of proficiency and that can be used as a normative scale.

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