

تطوير مهارات العمل الجماعي باستخدام التعلم القائم على  
المشاريع في محاضرات الترجمة: دراسة حالة في أحد مقررات  
الترجمة من الإنجليزية إلى العربية

**Development of Teamwork Skills Using Project-Based  
Learning in a Translation Classroom: A Case Study in  
an English-Arabic Classroom**

د. عبد الحميد بن مهطس العنزي  
قسم اللغة الإنجليزية- كلية الآداب- جامعة الجوف

# تطوير مهارات العمل الجماعي باستخدام التعلم القائم على المشاريع في محاضرات الترجمة: دراسة حالة في أحد مقررات الترجمة من الإنجليزية إلى العربية

د. عبد الحميد بن مهطلس العنزي

قسم اللغة الإنجليزية- كلية الآداب-جامعة الجوف


تاريخ قبول البحث: 2024/2/21م

تاريخ تقديم البحث: 2023/11/6م

## ملخص الدراسة:

تقوم هذه الدراسة ببحث مواقف الطلبة تجاه تطبيق أسلوب تعليم الترجمة القائم على مشروع الترجمة وفاعليته في تطوير مهارات العمل الجماعي كما تتناول الدراسة أثر ذلك على جودة أعمال الترجمة التي يقوم بها الطلاب، وتستخدم عينة الدراسة هذا الأسلوب في تعليم الترجمة في أحد المقررات الدراسية بجامعة سعودية. ولقد استخدمت الدراسة الأسلوب الكمي في جمع البيانات (استبانة قبل التجربة واستبانة ما بعد التجربة) في جمع البيانات من الطلبة ومعرفة مواقفهم وآرائهم تجاه أسلوب التعليم القائم على مشروع الترجمة ومدى مساهمته في تطوير مهارات العمل الجماعي قبل وبعد تطبيق هذا الأسلوب. ولمتابعة مدى تحسن جودة أعمال الترجمة لدى الطلاب، فقد تم إجراء اختبار ترجمة قبل تطبيق التجربة واختبار بعد تطبيق التجربة وتم تقييم هذه الاختبارات لمعرفة مستوى ادائهم في الترجمة، كذلك استخدمت الدراسة الأسلوب الكيفي في جمع البيانات وذلك بإجراء مقابلة أستاذ المقرر لمعرفة ملاحظاته وملاحظاته تجاه التحديات التي واجهته في تطبيق أسلوب التعليم من خلال مشروع الترجمة وكذلك الإيجابيات الخاصة بذلك. وتظهر نتائج هذه الدراسة تحسناً ملحوظاً في مواقف الطلبة تجاه مهارات العمل الجماعي بعد تطبيق الأسلوب المشار إليه سابقاً وكذلك وجود تحسن في مستوى الجودة لأعمال الترجمة الخاصة بالطلبة.

**الكلمات المفتاحية:** التعلم القائم على المشروع، مهارات العمل الجماعي، جودة الترجمة، تدريب المترجم.



## **Development of Teamwork Skills Using Project-Based Learning in a Translation Classroom: A Case Study in an English-Arabic Classroom**

**Dr. Abdulhameed Muhatlis Alenezi**

Department of English Language


College of Arts

Jouf University

### **Abstract:**

This study investigates students' attitudes towards the application of the project-based approach in teaching translation and its effectiveness in developing teamwork skills and examines the impact of the project-based approach on the quality of students' translation production. The case that this research studies uses the project-based approach in one of their English-Arabic translation classrooms at a Saudi university. The quantitative method (namely, pre-treatment and post-treatment questionnaires) was used to collect data from the students and to explore their attitudes towards project-based learning (PjBL) in developing teamwork skills before and after the application of this teaching approach. To examine the progress of students' translation quality, pre- and post-treatment tests were given to students and assessed. A qualitative method was also employed with the instructor; his feedback regarding the challenges and merits of applying the project-based approach was elicited through an interview. The overall findings of this study show a noticeable level of improvement in students' attitudes towards teamwork skills after using the aforementioned approach. There was also an improvement in the students' translation quality, as detected in their translation work.

**keywords:** Project-based learning, teamwork skills, translation quality, translator training.



## Introduction

The teaching approach used by translation instructors is a significant aspect of the learning process. In translator training, as is the case in many disciplines, there are several teaching approaches from which the instructor can choose. He or she will choose one based on the level of the students in their programme of study, the knowledge and skills they have, and the skills they need to learn. The appropriate method should only be selected after investigating the aforementioned factors; so that the teaching process can be successful. For example, the process-oriented approach in translation focuses on the process of translation rather than the product, and it is advocated for by several scholars in the field of translator training (Jääskeläinen, 1987; Tirkkonen-Condit, 1989; Kussmaul and Tirkkonen-Condit, 1995; Gile 1995; Königs, 1996; Lörcher, 1992). However, according to Gile (2009, p.15), this approach can be useful in the beginning of a course, but it needs to be followed by a product-oriented approach where the instructor has the opportunity to comment on students' choices of words, structures, and strategies used in translation and to suggest solutions. Another example is the task-oriented approach, in which the instructor assigns a task with a specific objective; it focuses on emphasising students' practice to learn a certain translation skill. Using this approach, the instructor can design specific tasks to measure the competence of students, so that he or she can identify

points of weakness and strength among students and teach accordingly.

In 2000, Kiraly proposed the social constructivist approach, where the focus is on the construction of learning and enabling students to make their own ways of learning. The instructor's role is to guide and facilitate this process. In the same vein, PjBL (project-based learning) emerged as an inductive learning approach that provides a platform for students not only to make their ways of learning but also to complete real-life translation projects that prepare students for life as a translator. This approach will be discussed in detail, as it is the core of this study.

### **Project-Based Learning**

Baer and Koby stated that

*We may hope to better prepare students for the workplace by offering them appropriate tools, but if our teaching methodology is of the traditional kind – performance magistrale by Jean-Rene Ladmiral (1977) in which the master passes on his/her knowledge to a passive apprentice – we may fail to produce translators who are capable of the flexibility, teamwork, and problem-solving that are essential for success in the contemporary language industry. (2003, p.vii–viii)*

It is important to seek an approach that can equip potential translators (students) with what they need to learn and prepare them for the translation market. PjBL is an approach that relies on

achieving specific objectives through collaborative or individual work. Learners are assigned certain tasks with specific time constraints to simulate translation tasks in the real world. It is defined by Blumenfeld et al. (1991) as a comprehensive approach that focuses on teaching by involving students in investigation. Students work to find solutions to nontrivial problems within this framework by posing and refining questions, arguing over concepts, making predictions, designing plans and/or experiments, gathering and analysing data, drawing conclusions, sharing their ideas and findings with others, posing additional questions, and producing artifacts.

The projects in this approach are “relatively long-term, problem-focused and meaningful units of instruction that integrate concepts from several disciplines or fields of study” (Blumenfeld et al. 1991, p.370). The emphasis is on learners, who are expected to do several long-term activities, and the projects are student-centred (Markham, Larmer, & Ravitz, 2003).

There are a number of characteristics that make this approach appropriate for various contexts. Students are given the freedom to make their plans and choices when working on their projects and make necessary arrangements accordingly. They have to discover the solutions to every problem they encounter, which enhances their ability for self-reliance. In addition to finding solutions, students also need to learn to think critically about translation problems they encounter and understand their implications.

According to Markham, Larmer, and Ravitz (2003), PjBL focuses on learning through doing; in other words, learners learn translation techniques, strategies, and solutions by working on authentic translation projects. This emphasises the role of instructors to encourage students to work together to enhance collaborative teamwork among them so they can share their knowledge and ideas. Risku (2002, p.531) stated that “it is paramount that teachers of translation and interpreting integrate authentic or near-authentic translation tasks into their teaching”. Therefore, instructors are expected to provide students with authentic translation tasks to simulate what they will experience in the translation market.

Learners are given the opportunity to deal with authentic texts that reflect the work they will find in the real world. They are therefore exposed to issues that translators commonly face. Blumenfeld et al. (1991, p.371) found that students are motivated by working on authentic texts in a project-based class and that they ascribe a higher value to it.

A unique advantage of PjBL is that students are assigned projects with deadlines. Having a time commitment for each project encourages students to develop skills in other areas demanded by the market, such as resource and cost management, distribution of workload, and working under pressure. Being exposed to these experiences will help learners adapt to the conditions and circumstances of the real market, which will

ultimately enhance their professional skills. Olohan (2007, p.55) stated that “students, by working on real translation assignments, learn to deal with real-life constraints and experiences: they acquire knowledge and skills; they develop expertise, autonomy and the ability to collaborate; they gain self-confidence and a concept of themselves as budding professionals”. Another important aspect of PjBL is that students are not given specific solutions to issues; they have the opportunity to figure out possible solutions and make their decisions based on their own perspectives.

The PjBL approach also plays an important role in the usage of computer-assisted translation (CAT) tools. Students are told to use these tools to find answers to issues they encounter whilst translating (see Boss and Krauss, 2007; Krauss and Boss, 2013). This creates an opportunity for students to practice using CAT tools, which are necessary for translators.

According to Kelly (2014), the PjBL approach is appropriate for advanced levels of training, but it should not be used for large-scale projects. The students who bear the responsibility of working on a translation project should have a great deal of knowledge and skills so they can independently translate. To achieve the optimum outcome of the PjBL approach, it is important to not assign large-scale projects to the students, as they are still learning and cannot be seen as independent professional translators yet.

Although this approach may appear to be student-centred, this does not mean the instructor’s role is not vital. While the instructor



is not expected to lead the learners to a certain destination, he or she does provide them with general guidelines and assistance that can help them to complete the project. According to Slavin (1989, p.236-237), for any effective collaborative learning, there should be two types of goals: group goals and individual accountability. In other words, the instructor needs to intervene whenever he or she feels that an intervention is needed. The instructor can help students by suggesting appropriate references and techniques to deal with common translation problems.

Based on the above, it is clear that PjBL has been advocated for by a large number of scholars, but Kiraly (2012) believes that to establish the validity of this approach, much more work needs to be done beyond the scope of his classes. The learning processes that led to achieving successful projects should be investigated and described. The surveys, which elucidate learners' attitudes about their translation competence and self-confidence after completing the projects, would explicitly help us to understand the value of this approach.

In a previous study in a similar vein, Li, Zhang, and He (2015) investigated the perceptions of students when taught using a PjBL approach, not for a translation-oriented project, but for a research-oriented project. These two are different types of projects. In translation-oriented projects, students work in groups on authentic projects with the primary aim of completing them, with the instructor offering guidance whenever needed. By doing this,

students practice translation, improve their translation competence, and become familiar with the challenges that professional translators encounter. In the research-oriented PjBL, instead of completing a translation project, students worked on conducting common and systematic inquiries into various translation issues that interested them, as illustrated by Kiraly (2000). "Students also learn to work together and (further) develop their communication, collaboration, thinking and technological skills, which are deemed essential for modern-day professional translators" Li, Zhang, and He (2015, p.5). In other words, this type does not focus on developing students' translation competence, but on other skills that they will need as professional translators.

Furthermore, Moghaddas and Khoshsaligheh (2019) investigated the effectiveness of the PjBL approach in a Persian-English translation class through a quasi-experiment and students' attitudes towards it. They used the post- and pre-treatment model as well as focus groups to collect their data. The significant findings of this study showed that students' attitudes were very positive towards the PjBL approach, and the students' translation competence, critical thinking skills, and teamwork skills were notably improved.

Kiraly (2012, p.93) described the need for further investigation to ensure the validity of the PjBL approach when he said, "It is clear that much work is yet to be done to establish the viability of the approach beyond the scope of my own classes". He also called

for further study into successful projects using the PjBL approach, and he specifically affirmed that “systematic surveys of student attitudes regarding their emerging competence and self-confidence as semi-professional translators and as increasingly experienced team members would also contribute significantly to our understanding of the value of this approach” (ibid).

Therefore, this study sheds light on the application of this approach in the translation classroom in a different context to find out the validity of its application in the translation between English and Arabic and as an example of a translator training programme in Arab universities in general and at Saudi universities in particular.

### **Teamwork Skills**

According to O’Neil, Allred and Baker (1997, p.413–417), the teamwork skills consist of six different skills: namely, coordination, or "the process by which team, resources, activities, and responses are organised to ensure that tasks are integrated, synchronised, and completed with established temporal constraints"; decision-making, or "the ability to integrate information, use logical and sound judgment, identify possible alternatives, select the best solution, and evaluate the consequences"; leadership skills, or "the ability to direct and coordinate the activities of other team members, assess team performance, assign tasks, plan and organise, and establish a positive atmosphere"; adaptability, which refers to the ability "to monitor source and nature of problems through an awareness of

team activities and factors bearing on the task"; communication, which refers to the ability to exchange information accurately; and interpersonal skills, or "the ability to improve the quality of team members interaction through the resolution of team members".

A unique effect of the PjBL approach is that it prepares students in a classroom to be able to work in the real market by developing their interpersonal competence. Kelly explicitly defines this competence in her model of translation competence:

*The ability to work with other professionals involved in translation process (translators, revisers, documentary researchers, terminologists, project managers, layout specialists), and other actors (clients, initiators, authors, users, subject area, experts), as well as team work, negotiating skills and leadership skills. (2014, p.33)*

This competence, in particular, was implicitly present in the PACTE (2011) model of translation competence, under the psycho-physiological component. One significant aspect of this competence is the ability to work with teams on translation projects. Hurtado Albir sees it as "the skills that allow one to interact well with other people, whether individuals or groups " (2007, p.168). This skill is a distinctive characteristic of the social-constructivist methodology proposed by Kiraly (2000), namely, PjBL. Investigating the interpersonal competence of students when they are taught using the PjBL approach. Also, the development of this competence is vital for students to become capable of meeting

one of the markets' demands, in that "the job of a translator tends to become more and more of a team job "(Gouadec, 2000 cited in Pym 2000, p.56). The learner needs to be adaptable to work individually or on a team, and this competence needs to be emphasised by the translator training programme. PjBL is considered to be one of the best approaches in which learners are offered the opportunity to work with their colleagues, simulate a team of professional translators, distribute the responsibilities to team members, and manage all processes. The roles for students in each project (e.g. translator, reviser, terminologist, project manager, etc.) should circulate to provide the opportunity for each student to experience the challenges of each role. These role changes can be facilitated by the instructor who supervises the students while they work on their translation projects.

The current study seeks to find answers to the research question 'What are the students' attitudes in the case-study programme towards the effectiveness of a PjBL approach in developing students' teamwork skills? And how useful is this method in developing students' translation quality?'

## **Methods**

This study is a quasi-experiment, which combines several methods to answer the two aforementioned research questions. To identify students' attitudes towards the effectiveness of the PjBL approach in developing teamwork skills in translator training, it is important to take students' input at two stages: first, before they are

taught by this approach and second, after the application of this quasi-experiment, which includes teaching the students using the PjBL approach. Therefore, a questionnaire combining several close-ended questions is employed to identify students' attitudes towards the PjBL approach before they are taught to use it.

It is important to highlight that participants in this study including students and instructors were informed that their input will be confidential and their identities will be anonymous to ensure that they can freely participate in this study. After giving their consent to take part in the study, students were also assured that their participation was for evaluating the PjBL approach and it would not violate any ethical considerations.

The PjBL approach was implemented in a translator training classroom at a Saudi university to enable the students to experience this approach and provide their input on its efficiency in developing their teamwork skills and enhancing the quality of their translations. The participants were 31 students in the final year of their BA translation programme. The reason for selecting students in their final year is that they have arrived at an advanced level in their programme of study and have studied most of what it can offer them. According to Kelly (2014, p.116), the PjBL approach is most suitable for students who are at an advanced level of training.

To evaluate students' teamwork skills before and after the application of the PjBL approach, a questionnaire based on the Teamwork Skills Questionnaire developed by O'Neil et al. (1999)

was used. Participants took a questionnaire containing 25 questions to find out their attitudes towards teamwork skills before and after the treatment. The questionnaire included questions on teamwork skills: namely, coordination, decision-making, leadership, interpersonal skills, adaptability, and communication. The students gave their responses to several close-ended questions concerning their experience working as part of a team, and they were also given several open-ended questions to provide any further comments.

The second aim of this research was to measure the effect of the PjBL approach on improving the quality of students' translation, so they were given two translation tests from English to Arabic. The pre-treatment text entitled 'Time to Reconsider Nuclear Energy?', was roughly 250 words, and was completed before the application of the PjBL approach to evaluate their current levels. The post-treatment test was entitled 'Clinical Management for Deceased Patients' and consisted of nearly 220 words. The texts used in the tests were obtained from the NAATI (National Accreditation Authority for Translators and Interpreters), which is the certifying authority for translators and interpreters in Australia. It is in charge of issuing certifications for translators and interpreters who wish to work in Australia. The two selected tests were rated as medium level of difficulty according to two well-experienced translation instructors who were asked to rate them. The two projects were assessed by the two instructors using the Waddington (2001)

holistic assessment method, which focuses on the translation competence as a whole by assessing three aspects: accuracy of transfer of Source Text (ST) content, quality of expression in the Target Language (TL), and the degree of task completion.

### **Procedures**

The students, firstly, completed the pre-treatment questionnaire to obtain their attitudes towards teamwork skills. After that, they completed the pre-treatment test as everyone was asked to translate the first text to determine their levels of translation competence before the treatment.

It is important to know that this was the first time that these students were taught using the PjBL approach. They had previously been taught by mostly instructor-centred approaches. Therefore, in the beginning, they were introduced to the project-based approach through a focus group where the researcher gave them background information on how the teaching and learning process would be conducted, what they would be expected to do, and what role their instructor would play. They were also given a chance to inquire about any issues concerning the PjBL approach to ensure that the experiment would proceed smoothly. The researcher was in direct contact with the instructor to ensure a full application of the PjBL approach.

After that, they were divided into small groups; each group consisted of 5 to 6 students and they were taught using this approach for a total of 8 weeks, for 3 hours a week. Each group



was requested to work on two translation projects collectively, and the instructor was present to provide guidance. The first project given to students was a media report on the agriculture of olive trees from a local news agency and the second project was part of an annual report of a company detailing financial information, annual highlights, future forecasts, and a letter from the CEO.

### **Data Analysis**

To analyse the quantitative data collected through the pre- and post-treatment test, the scores given by the instructors were analysed using SPSS software through different methods (inferential statistics, intraclass correlation, and paired-samples t-test) based on the guidelines of Mellinger and Hanson (2017) to examine the progress students made after they were taught using the PjBL approach. Also, the data from students' pre-treatment questionnaire and post-treatment questionnaire concerning their attitudes to their experience of teamwork skills in this approach were analysed using the same aforementioned methods.

### **Results**

#### **Students Teamwork Skills**

The results of the students' questionnaires concerning their attitudes about their teamwork skills (coordination, decision-making, leadership, interpersonal skills, adaptability, and communication) before and after the treatment are the following. First, the results show a significant difference in the communication skills after they were taught using the PjBL

approach ( $M = 9.19$ ,  $SD = 13.131$ ) in comparison with the results before ( $M = 3.52$ ,  $SD = 1.262$ ) conditions;  $t(30) = -2.436$ ,  $p = 0.02$ . It is clear that the students believe that their communication skills improved after using the PjBL approach, which emphasises the need to communicate with group members to organise, solve issues and arrive at an agreement about the final translations of their projects. Second, the results show a noticeable difference in terms of decision-making skills before the students were taught using the aforementioned approach ( $M = 4.45$ ,  $SD = 1.121$ ) and after they experienced it ( $M = 8.19$ ,  $SD = 1.078$ ) conditions;  $t(30) = -14.500$ ,  $p = 0.004$ . A possible reason for this is that decision-making may be highly affected by the PjBL approach, as every student group was given a task, and they all took part in deciding the outcome. Third, the leadership skills also witnessed improvement in terms of students' assessment of their leadership skills before the treatment ( $M = 4.03$ ,  $SD = 1.602$ ) and after the treatment ( $M = 7.10$ ,  $SD = 1.326$ ) conditions;  $t(30) = -7.300$ ,  $p = 0.003$ . Although the difference may not be very significant, it indicates the value of the approach to leadership. A significant role was played by the instructor by allowing the students the opportunity to lead the project, which reflects on this skill. Fourth, the results of the interpersonal skills of students before the treatment ( $M = 5.16$ ,  $SD = 1.068$ ) and after the treatment ( $M = 6.68$ ,  $SD = 1.249$ ) conditions;  $t(30) = -6.085$ ,  $p = 0.001$  showed a slight difference. Students found themselves in a position where they had to communicate

with their colleagues to complete the project, which probably slightly contributed to the improvement of their interpersonal skills. Fifth, the results show a slight difference concerning their adaptability skills before the treatment ( $M = 4.42$ ,  $SD = 1.432$ ) and after the treatment ( $M = 6.52$ ,  $SD = 1.180$ ) conditions;  $t(30) = -7.118$ ,  $p = 0.006$ . This could highlight the fact that the students managed to identify the nature of the problems they faced while translating through teamwork. Finally, the results indicate that students' self-assessment of their coordination skills before they were taught using the PjBL approach ( $M = 4.42$ ,  $SD = 1.385$ ) were less than their self-assessment after the treatment ( $M = 6.61$ ,  $SD = 1.358$ ). A repeated-measures t-test found this difference to be not significant,  $t(30) = -6.869$ ,  $p = 0.001$ . This indicates that the students' experience in the PjBL approach developed their coordination skills, especially since the work on each translation project required the distribution of tasks to group members.

The students were also given an open-ended question in each questionnaire to add any further comments if they wished to do so. Several students responded to this question, especially in the post-treatment questionnaire (unlike in the pre-treatment questionnaire where this question did not receive any responses). Four students believed that this approach gave them the freedom to be as creative as possible in producing translations, unlike the previous approach (instructor-centred), which they believed was curbing their creativity and causing them to imitate the translations of their

instructor. Six students expressed their admiration for the PjBL approach, as it did not put them under pressure and they felt as if they were working on a real project. Another three students expressed their satisfaction with the PjBL approach, as it allowed them the opportunity to depend mainly on themselves, while the teacher was cooperative in providing help when they needed it.

### **Instructor's Interview**

The instructor who used the PjBL approach for the academic term was interviewed. He was asked several questions about the application of the PjBL approach and the challenges, advantages, and disadvantages that the students encountered. The first question was about the instructor's opinion of the PjBL approach, as this was his first experience using it to teach translation. The instructor expressed a positive attitude towards the PjBL method. He said that 'the PjBL method is convenient for instructors, and it gives them the opportunity to focus on developing students' skills, and it encourages the students to interact and assist each other in group work'.

In response to the challenges the students encountered when applying this method, the instructor's response was: 'In the beginning, students asked for assistance in solving translation issues, but, by encouraging them to discuss the issue with their colleagues in the group, they gradually started to rely on themselves and ask less for assistance'. This shows that because it was the first time students were taught using this approach, they

were reluctant to use their knowledge and skills to solve translation issues. They were probably used to asking their instructor about any translation issue they faced. The instructor also added that ‘the common questions from students were mostly about difficulties in translating lexical items, such as not finding exact equivalents for certain expressions, and some stylistic problems related to the level of formality when translating the text into the TL’. The instructor was also questioned about the quality of students’ translations in comparison with their translations before the PjBL. His response was the following: ‘I noticed that many students became more aware of the translation issues when they put their heads together in groups and everyone provided his or her input. Most of their translations are well done and they are incomparable to their individual translations in previous courses’. Overall, the instructor seemed to be satisfied with teaching using the PjBL approach, and he plans to adhere to it in future translation lessons.

### **Translation Quality**

To address the final research question with regard to the quality of students’ translation before and after being taught by the PjBL method, the scores of the two tests taken by the students (before and after the treatment) were compared. The scores were measured using an intraclass correlation coefficient (ICC), which is a reliability index analysis used for cases where there are two raters. According to Koo and Li (2016,155), ICC measures the level of consistency of the grades given by the raters and ‘based on the 95%

confident interval of the ICC estimate, values less than 0.5, between 0.5 and 0.75, between 0.75 and 0.9, and greater than 0.90 are indicative of poor, moderate, good, and excellent reliability, respectively’.

Based on the ICC measurement, the ratings of the pre-treatment (ICC = 0.93) and the post-treatment test (ICC = 0.86) show a good level of agreement among the two raters in their assessment of the quality of the students’ translations. Therefore, the scores of the two tests were compared using a paired-sample t-test, which showed a noticeable difference before (M = 4.10, SD = 1.19) and after the treatment (M = 7.30, SD = 1.15),  $t(9) = -6.85$ ,  $p < .05$ , 95% CI [4.2, 2.1]. The volume of difference was significant as Hedges’  $g$  was 2.73.

## **Discussion**

### **Students’ attitudes towards their teamwork skills**

The results of this study demonstrated a high level of satisfaction among students about the development of teamwork skills after using the PjBL approach in comparison with their self-assessment of these skills in the pre-treatment stage. These results concur with findings in the experiment carried out by Li, Zhang, and He (2015), which proved that the students had positive attitudes towards the research-based translation project approach in general when they encountered it for the first time in their business translation course. There was also agreement in the results for communication and leadership skills. Both their study and this

study show very significant progress in students' attitudes in terms of their ability to conduct necessary communications and to lead.

Students' attitudes towards their decision-making skills showed significant change after they were taught using the PjBL approach. These results are also in line with the results of Moghaddas and Khoshsaligheh (2019), which investigated the effectiveness of the PjBL approach in a Persian-English translation class. They discovered a very significant change in students' decision-making skills after the application of this approach and tangible development of students' translation competence was detected. There is also agreement between the results of their study and this study in terms of coordination skills, where a slight difference was detected in the students' coordination skills before and after the application of the PjBL approach. As for adaptability and interpersonal skills, the results indicated a slight difference. In other words, the PjBL approach had a slight effect on students' aforementioned skills, and this could be justified by the fact that not all students had challenges in these skills. The effects of this approach on students' self-assessment of their six teamwork skills were very noticeable on decision-making and communication skills, as they were the two with the most significant difference, followed by leadership skills, which was also rated as one of the skills that students developed during their experience with the PjBL approach.

Training the students for their prospective translation jobs by simulating the real market and enabling the students to take different roles in a group could have a positive impact on the students, especially in the later stages of their study. The satisfaction of the students is a strong indicator of the validity of the PjBL approach, especially for students who are in the final stages of their translation programmes. It equips students with what they will need in the market in terms of coordinating the translation projects assigned to them.

Providing the students with authentic translation projects not only exposes them to the challenges present in the market, but also provides them with the opportunity to prove themselves and experience the responsibility of a professional translator. Kiraly (2006,80) stated, “Participating in authentic, collaborative translation projects with the support of teachers and the panoply of resources available to professional translators is the best way for students to develop advanced translation skills per se as well as personal and social translator competence”.

### **Translation Quality**

The PjBL approach has proven to be effective in improving students’ translation quality according to the findings of this study. Students’ performance improved after participating in this approach. It enhanced their translation competence as well as their self-reliance to carry out translation projects (with the instructor acting merely as a guide). The results of this research also concur



with the research of Kiraly (1997, 2000, and 2005), where the translations of students in a PjBL class were appreciated by the clients and with the results of Moghaddas and Khoshsaligheh (2019), which also found remarkable progress in students' translation quality after being taught using the PjBL approach ("an important achievement of this project-based translation course was the improvement of the students' translation quality") (ibid, p.204). Generally, students' attitudes towards the development of their teamwork skills (namely, coordination, decision-making, leadership, interpersonal skills, adaptability, and communication) reflect a notable improvement in their translations, which can be seen in their scored post-treatment test in comparison with their scored pre-treatment test. All these skills have helped them to develop their translation competence and gain hands-on experience in the profession, which is what PjBL aims to achieve. Also, the instructor who was responsible for implementing the PjBL approach advocated for this approach, as he noticed improvements in students' outcomes and their interaction during translation.

## **Conclusion**

This article described an actual implementation of the PjBL approach on students at an advanced stage of their study in a translation programme who had not been taught by this method previously to identify their attitudes towards the PjBL. The results show an overall positive attitude of students, who felt that the PjBL approach succeeded in developing their teamwork skills. The data

reveals that most of their teamwork skills (coordination, decision-making, leadership, and communication) were positively affected, and the students expressed satisfactory attitudes towards the progress they made, even though a few skills (namely, adaptability and interpersonal skills) were not highly positively affected. At the same time, they were not negatively affected. The study also concluded that PJBL improved students' translation quality, as evidenced by the two tests taken by the students before and after PjBL. These results show a tangible improvement in students' translations. Also, the instructor who was responsible for the implementation felt satisfied with this approach, and he even plans to use it in his future translation teaching. In conclusion, the PjBL approach can be a very helpful tool for teachers to help students develop teamwork skills and simulate the real-world market to encourage learners to adapt to their future jobs as translators.

## References:

- Baer, B. J., & Koby, G. S, eds. (2003). *Beyond the ivory tower: rethinking translation pedagogy*. John Benjamins Publishing.
- Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, 26(3-4), 369-398.
- Boss, S., & Krauss, J. (2007). Real projects in a digital world. *Principal Leadership*, 8(4), 22-26.
- Gile, D. (1995/2009). *Basic concepts and models for interpreter and translator training*. Amsterdam and Philadelphia: Benjamins
- Hurtado Albir, A. (2007). Competence-based curriculum design for training translators. *The Interpreter and Translator Trainer*, 1(2), 163-195.
- Jääskeläinen, R. (1987). What happens in a translation process: Think-aloud protocols of translation [Unpublished Master Thesis]. University of Joensuu, Savonlinna.
- Kelly, D. (2014). *A Handbook for translator trainers*. Routledge.
- Kiraly, D. (2000). *A Social constructivist approach to translator education: Empowerment from theory to practice*. Manchester: St Jerome Publishing.
- Kiraly, D. (2012). Growing a project-based translation pedagogy: A fractal perspective. *Meta: Journal des Traducteurs/Meta: Translators' Journal*, 57(1), 82-95.

- Koo, T. K., & Li, M. Y. (2016). A Guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, 15(2), 155-163.
- Königs, G. (1996). Translation process(es). *META. Journal des Traducteurs, Translators' Journal*, 41(1), 164-170
- Krauss, J., & Boss, S. (2013). *Thinking through project-based learning: Guiding deeper inquiry*. California: Sage Publications.
- Kussmaul, P. & Tirkkonen-Condit, S. (1995). Think-aloud protocol analysis in translation studies. *TTR: Traduction, Terminologie, Redaction*, 8 (1), 177-199.
- Li, D., Zhang, C., & He, Y. (2015). Project-based learning in teaching translation: students' perceptions. *The Interpreter and Translator Trainer*, 9(1), 1-19.
- Lörscher, W.(1992). Process-oriented research into translation and implications for translation teaching. *TTR: Traduction, Terminologie, Redaction*, 5 (1), 145-161.
- Markham, T., Larmer, J., & Ravitz, J. L. (2003). *Project based learning handbook: A guide to standards-focused project based learning for middle and high school teachers*. Novato, CA: Buck Institute for Education.
- Mellinger, C., & Hanson, T. (2016). *Quantitative Research Methods in Translation and Interpreting Studies*. London: Routledge.
- Moghaddas, M. & Khoshsaligheh, M. (2019). Implementing project-based learning in a Persian translation class: A mixed-

methods study. *The Interpreter and Translator Trainer*, 13(2), 190-209. 10.1080/1750399X.2018.1564542

O'Neil, H. F., Allred, K., & Baker, E. L. (1997). Review of workforce readiness theoretical frameworks. In O'Neil, H. (Ed.) *Workforce readiness: Competencies and assessment*, (pp. 3-25). New Jersey: Lawrence Erlbaum Associates.

O'Neil, H. F., C. Lee, S. Wang, and J. Mulkey. (1999). *Final report for analysis of teamwork skills questionnaire*. Sherman Oaks, CA: Advanced Design Information.

Olohan, M. (2007). Economic trends and developments in the translation industry: What relevance for translator training?. *The Interpreter and Translator Trainer*, 1(1), 37-63.

PACTE Group. (2011). Results of the validation of the PACTE translation competence model: Translation project and dynamic translation index. In O'Brien, S. (Ed.) *Cognitive explorations of translation* (pp. 30-53). London and New York: Continuum

Pym, A. (2000). Innovation in translator and interpreter training. Report on an on-line symposium. *Across Languages and Cultures*, 1(2), 209-273.

Risku, H. (2002). Situatedness in translation studies. *Cognitive Systems Research*, 3(3), 523-533.

Slavin, R. E. (1989). Cooperative learning and student achievement. In Salvin, R. (Ed.) *School and classroom organization*, (pp. 129-156). New Jersey: Lawrence Erlbaum.

- Tirkkonen-Condit, S. (1989). Professional vs. non-professional translation: A think-aloud protocol study. In Séguinot, C. (Ed.) *The translation process*, (pp. 73-85). Toronto: York University.
- Waddington, C. (2001). Different methods of evaluating student translations: The question of validity. *Meta*, 46 (2), 311–325. 10.7202/004583ar.

### Romanized References

- Baer, B. J., & Koby, G. S, eds. (2003). mā warā' al-burj al-‘ājī : i‘ādat al-tafkīr fī tarbiyat al-tarjamah. Jūn bnjāmyn lil-Nashr.
- Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A.) 1991 (. ṥḥfyz al-ta‘allum al-qā’im ‘alā al-Mashārī’ : al-ḥuffāz ‘alā al-adā’ wa-Da‘m al-ta‘allum. ‘Ālam nafs tarbawī, 26 (3-4), 369-398.
- Boss, S., & Krauss, J. (2007). Mashārī’ ḥaqīqīyah fī ‘Ālam raqmī. al-Qiyādah al-ra’īsīyah, 8 (4), 22-26.
- Gile, D. (1995/2009). al-mafāhīm wa-al-namādhij al-asāsīyah li-tadrīb al-Mutarjimīn alshfwyyn wālmtrjmyyn alḥryryyn. Amistirdām wfylādlyfā : bnjāmyn
- Hurtado Albir, A. (2007). taṣmīm Manāhij dirāsīyah qā’imah ‘alā al-kafā’ah li-tadrīb al-Mutarjimīn. al-Mutarjim al-shafawī wālmdrb alḥryry, 1 (2), 163-195.
- Jääskeläinen, R. (1987). mā Yaḥduthu fī ‘amalīyat al-tarjamah : Brütükülāt al-tarjamah bi-ṣawt ‘ālin [Risālat ra’īsīyah ghayr manshūrah]. Jāmi‘at jwnsw, sāfwnlynā.
- Kelly, D. (2014). kutayyib lmdrby al-Mutarjimīn. rwtlydj.

- Kiraly, D.) 2000 (. Nahj binā' ijtīmā'ī li-ta'īīm al-Mutarjimīn : al-tamkīn min al-naẓarīyah ilā al-mumārasah. Mānshistar : Nashr Sānt Jīrūm.
- Kiraly, D.) 2012 (. taṭwīr tarbiyat al-tarjamah al-qā'imah 'alā al-mashrū' : manzūr kswry. Meta : Journal des Traducteurs / Meta : Translators 'Journal, 57 (1), 82-95.
- Koo, T. K., & Li, M. Y.) 2016 (. Dalīl twjyhy lākhtyār mu'āmalāt al-irtibāṭ dākhl al-ṭabaqah wāl'blāgh 'anhā li-Buḥūth almwthwqyh. Journal of Chiropractic Medicine, 15 (2), 155-163.
- Königs, G. (1996). 'amalīyat ('amalīyāt) al-tarjamah. Mītā. Journal des Traducteurs, Translators 'Journal, 41 (1), 164-170
- Krauss, J., & Boss, S. (2013). al-tafkīr min khilāl al-ta'allum al-qā'im 'alā al-mashrū' : tawjīh astfsār a'maq. California : Sage Publications.
- Kusmaul, P. & Tirkonen-Condit, S. (1995). taḥlīl albrwtkwkwl bi-sawt 'ālin fī Dirāsāt al-tarjamah. TTR : Traduction, Terminologie, Redaction, 8 (1), 177-199.
- Li, D., Zhang, C., & He, Y. (2015). al-ta'allum al-qā'im 'alā al-mashrū' fī tadrīs al-tarjamah : taṣawwurat al-ṭullāb. al-mutarjim al-shafawī wālmḍrb alḥryry, 9 (1), 1-19.
- Lörscher, W. (1992). Buḥūth muwajjahah Naḥwa al-'amalīyāt fī majāl al-tarjamah wa-āthāruhā 'alā tadrīs al-tarjamah. TTR : Traduction, Terminologie, Redaction, 5 (1), 145-161.
- Markham, T., Larmer, J., & Ravitz, J. L.) 2003 (. kutayyib ta'īīm qā'im 'alā al-mashrū' : Dalīl li-mashrū' yrkz 'alā al-ma'āyīr

- ystnd ilá al-ta'allum li-mu'allimī al-Madāris al-mutawassiḥ wa-al-thānawīyah. nwfātaw, Kālīfūrniyā : Ma'had bāk lil-ta'līm.
- Mellinger, C., & Hanson, T.) 2016 (. Research Methods in Translation and Interpreting Studies (bi-al-lughah al-Injilīzīyah). Landan : rwtlydj.
- Moghaddas, M. & Khoshsaligheh, M.) 2019 (. Tanfidh al-ta'allum al-qā'im 'alá al-mashrū' fī Faṣl al-tarjamah bi-al-lughah al-Fārisīyah : dirāsah mkhtlṭh al-asālīb. al-mutarjim al-shafawī wālmdrb alṥryry, 13 (2), 190-209. 10. 1080/1750399X. 2018. 1564542
- (O'Neil, H. F., Allred, K., & Baker, E. L.) 1997 (. isti'rāḍ al-Uṭur al-nazarīyah lāst'dād al-quwá al-'āmilah. In O'Neil, H. (Ed.) Workforce readiness : Conferences and assessment, (pp. 3-25). nywjrysy : Lūrāns irlbāwm aswshyts.
- Ūnīl, itsh If, Sī lī, Is wāngh, wjy mwlky.) 1999 (. al-taqrīr al-nihā'ī li-taḥlīl astbyān mahārāt al-'amal al-jamā'ī. shyrmān awks, Kālīfūrniyā : ma'lūmāt al-taṣmīm al-mutaqaddimah.
- Olohan, M.) 2007 (. al-Ittijāhāt wa-al-taṭawwurāt al-iqtisādīyah fī ṣinā'at al-tarjamah al-taḥrīrīyah : mā Ahammīyat Tadrīb al-Mutarjimīn alṥryryyn? al-mutarjim al-shafawī wmdrb al-Mutarjimīn alṥryryyn, 1 (1), 37-63.
- Majmū'ah PACTE. (2011). natā'ij al-Taḥaqquq min ṣiḥḥat namūdhaj kafā'at al-tarjamah PACTE : Mashrū' al-tarjamah wa-fihris al-tarjamah aldynāmyky. In O'Brien, S. (Ed) Cognitive Explorations of translation (pp. 30-53). Landan wnywywrk : Continuum



- Pym, A. (2000). al-ibtikār fī Tadrīb al-Mutarjimīn alḥryryyn wālmtrjmyyn alshfwyyn. taqrīr ‘an Nadwat mubāsharatan. ‘abra al-lughāt wa-al-thaqāfāt, 1 (2), 209-273.
- Risku, H. (2002). al-ḥālah fī Dirāsāt al-tarjamah. Cognitive Systems Research, 3 (3), 523-533.
- Slavin, R. E. (1989). al-ta‘allum al-ta‘āwunī wa-taḥṣīl al-ṭullāb. In Salvin, R. (Ed.) School and classroom organization, (pp. 129-156). nywjyrsy : Lūrāns irlbāwm.
- Tirkonen-Condit, S. (1989). al-tarjamah al-mihnīyah muqābil ghayr al-mihnīyah : dirāsah Burūtūkūl Fikrī bi-ṣawt ‘ālin. In Séguinot, C. (Ed.) The translation process, (pp. 73-85). Tūrantū : Jāmi‘at Yūrḳ.
- Waddington, C. (2001). Ṭuruq mukhtalifah Itqyym al-tarjamāt al-ṭullābīyah : mas’alat al-Ṣiḥḥah. Mītā, 46 (2), 311-325. 10. 7202/004583ar.