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# Using a SPOCs-Based Training Program to Develop ESP Instructors' Language Skills and Self-Regulation

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## Using a SPOCs-Based Training Program to Develop ESP Instructors' Language Skills and Self-Regulation

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### ABSTRACT

This study aimed at developing English for Specific Purposes (ESP) instructors' reading and writing skills and their self-regulation through using a Small Private Online Courses SPOCs-based training program. To fulfill this purpose, some instruments were constructed, a pre-post reading skills test, a pre-post writing skills test with a writing rubric and a self-regulation scale were constructed by the researcher. The participants of the study were 32 ESP instructors selected from 17 different schools, academies, and universities from eight different countries. The study adopted the quasi-experimental design using two groups: the experimental group was taught through the proposed SPOCS-based training program while the control group studied through the regular instructional method. Results of the study revealed that the experimental group of the ESP instructors' reading and writing skills and their self-regulation were significantly developed and they outperformed their control group counterparts of the control group in the target skills and self-regulation. It was recommended that the SPOCs-based training program should be used in teaching to develop reading and writing skills and other language skills. In addition, ESP instructors should be provided with reading and writing courses in which SPOCs-based training program is employed.

**Key words:** *Reading Skills, Writing Skills, Self-regulation, Small Private On-line courses, Training programs, English for Specific Purposes.*

### Introduction and background

In the last few years, the education sector has suffered many changes, changes that in previous decades would have been unimaginable. No one could have predicted the innovations that this field would witness. The current options, the traditional and the online education, are infinite but not all of them are a fit for all students.

There are many advantages for traditional education which means education in which instruction takes place between an instructor and

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students where all are physically present in the same classroom. Traditional education gives the feeling of sociability and solidarity. Traditional education sometimes makes the student feel less lonely. The student might feel like they are not facing academic challenges alone and can even build more confidence. (Alishova, 2021). In addition, Ability to work in groups. Traditional education, in general, allows for group projects and student interaction. As a result, they can learn from each other and share doubts and concerns. These social ties can help to come up with new ideas and stimulate creativity. (Williams & Williams, 2011). Besides, traditional education gives a stable and solid plan. students who lack self-discipline value a study plan that offers stability and is easy to follow. Traditional education forces the student to attend the lessons and to study when required. (Danielson, 2007).

On the other hand, there are disadvantages of traditional education that might affect the learning process. Traditional education may have a stiff schedule. There is no flexibility to create a personal calendar to combine studies and personal or work life. (Premier & Maurya, 2021). Moreover, traditional education could provide higher costs not only of money but also of time: as previously mentioned, commuting demands an economic expense. And if the classroom is far, time is also a factor to consider. (Williams & Williams, 2011). Besides, it may cause a loss of individualization in a large group of students. It is hard for a teacher to have a customized study plan that fits the needs of each individual in the group. (Premier & Maurya, 2021). In addition, traditional education has less and more expensive didactic material available. traditional education is more limited when it comes to educational formats. Sometimes pictures, videos, or forums are not accessible 24/7. This feature might limit the learning and hinder a good study plan. (Littlejohn, & Pegler, 2007). Finally, traditional education is still coming strong. It is a very efficient and solid option. More importantly, it provides students with a good study plan.

Not only traditional education but also online education has disadvantages. Online education needs to compromise, motivation, and self-discipline. There are students that without a predetermined structure have a hard time finding time to study. Self-discipline can be taught, but some students already possess it naturally. Online study demands a compromise with the tasks (Farrington et al., 2012). Also, online education needs technological equipment and a good internet connection. It is not enough to have a notebook and a pencil case at your disposal. The equipment you need is a computer with a webcam, headphones, and a good internet connection.

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If you do not have one of these, you will have to acquire it. In addition, online education is hard to use in some academic fields. Not all disciplines can be taught online. A few subjects, mostly the ones that require practice, are better in person. However, there's a way to combine both to achieve an optimal result (Bain, 2004). Besides Online education might face distractions. This can happen if the chosen place to study is not adequate. The education is in the hands of the student and as a result, it is vitally important to have a proper space far from any potential distraction. The virtual environment is not enough to maintain the full concentration of the student (Paulsen, 2002).

In the recent years, almost half a million learners from about 154 countries joined one of the British Council's online courses. This is believed to be the world biggest ever Massive Open Online Courses. (Gatrell, 2015). This type of courses brings together huge numbers of individuals from all over the world to learn through video tutorials, activities, and discussions .

The original concept for a MOOC came from academic research in the early 1960s with the idea that people could be linked by a series of computers to listen, discuss, and learn about a particular topic. Now, continuous development in technology has become the helper for virtually everybody in the world to have access to a broad and diverse range of education and learning topics.

MOOCs provide free online courses that enable people with an interest in a selected topic to study and learn through interaction with others also interested in the same topic. Other participants could be from the same organization, city, or region, learning together with people from other organizations, cities, regions and countries from around the world. MOOCs are the internet equivalent of distance education and there could be more than one thousand participants in a single course.

According to Pomerol, Epelboin & Thoury (2015) in their characterization of MOOCs, the "massive" aspect, is referring to a very large number of registered students, is not a very clear concept. Indeed, once a course is put online, the potential audience opened up is absolutely enormous. MOOCs could be designed for a limited audience: specifically, the students enrolled on a conventional program at a university, imparted by the teaching team. So, the need for small private online courses (SPOC) come to the surface. This term was popularized by Armando Fox, head of online education at Berkeley, who has become a zealous proponent of

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SPOCs after having experienced online teaching himself, on a “software engineering” course taught with David Patterson .

SPOC is a tool for changing the pedagogical perspective. With a SPOC, the teachers’ hope is that the students will become active participants in their own learning formation:

...“ if MOOCs are used as a supplement to classroom teaching rather than being viewed a replacement for it, they can increase instructor leverage, student throughput, student mastery, and student engagement. I call this model the SPOC...” (Fox, 2013) P.25

SPOCs refers to a version of MOOCs. It offers some solution that students are selected, which limits numbers of participants, and ensures they satisfy some entry requirements for the course. SPOCs allow educational establishments to use them in a "blended and flipped learning" approach that combines classroom teaching with online learning .

SPOCs need to be built on the basis of high-quality MOOCs. The content of the chosen MOOC course should be benchmark, which means the all the teaching contents have been included with necessary depth and breadth requirements. Thus, the MOOC audiences who are willing to learn can learn more and the MOOC audiences whose learning foundations are not good can learn solidly by watching the content repeatedly.

With the rapid development of information technology, various online courses have grown up and SPOC is one of them. In the meantime, many educational institutions are in the process of transformation from traditional classroom teaching to web-assisted teaching, which demands for a corresponding adjustment of teaching techniques used to guide teaching practice. Therefore, improve the quality of EFL teaching become a very important goal for both the teachers and the institutions. Enhancing both teaching and learning skills for the teachers specially after spending a period of time without development or new training program to review their own language skills specially for reading and writing skills.

A language is used for many kinds of purposes. Thus, it has many functions as well. Furthermore, there are two macro skills of a language; they are receptive and productive skills. Writing skill is one of the productive skills that should be mastered in using a language .

writing skill is a complex activity in producing a qualified writing. The complex activity consists of stages as the steps in writing. To improve students’ writing skill, the teaching and learning process of writing needs to

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be done well with developed input and effective activities. As a result, teachers need to consider the teaching of writing skill well based on their student's needs, ability and capacity.

A writing process is a complicated process because the writing process needs cognitive abilities in recognizing some segments of languages to produce a qualified writing. In general, writing process is done through two stages: exploring ideas and processing the ideas into readable texts. Olson (1996) claimed that writing in the language becomes a complicated activity because writing involves meaningful segments of language: words, sentence, grammar, and how to transfer those segments into written forms.

On the other hand, reading skill is one of the receptive skills that should be mastered in using a language, as it also, has significances in improving a communicative competence of learning the language.

Reading comprehension in second language L2 has always been a popular but a controversial issue. Factors affecting second language reading skills are still under discussion (Jeon & Yamashita, 2014). However, little controversy arises over certain aspects of reading skills. For example, it has been established for long that reading involves a number of subskills such as decoding the written text, comprehension of the surface meaning and making deductions or inferences from what is available in the text (Spearritt, 1972). Some other researchers have made use of a distinction between inferencing as text memory, text inferencing, knowledge access, and knowledge-based inferencing (Hannon & Daneman, 2001). Among these subskills, making inferences about the text is regarded as central to reading comprehension (Farr, Carey, & Tone, 1986).

There is a practical relationship between reading and writing (Alderson & Urquhart, 1984). Calkins, (1986) commented that one must understand his/her readers before even conceiving the idea of writing. However, for a long time, writing and reading have been taught as completely separate skills. According to Kroll & Reid (1994), both reading and writing are strongly related in that they exist within a larger concept, and the context .

Over the past 30 years, English for specific purposes (ESP) has established itself as a viable and vigorous movement within the field of TEFL, parallel to the developments in science, technology, and business. Therefore, there has been a great deal of improvement in curriculum development in this field and the application of findings of ESP researchers continues to increase and expand throughout the world.

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ESP requires comprehensive needs analysis as the learning-centered curriculum is not static, it is impossible to expect that the developer be in a position to identify the perfect balance of the abilities for any particular group of learners. In reality, a large part of this responsibility is on the instructors who are in the best position to identify the changing in the learner needs and who are in the best position to ensure that all students receive a balanced system of language.

Effective ESP programs require relevant materials, knowledgeable instructors, and teamwork with subject matter professionals. (Sullivan & Girginerab, 2002)

The ESP profession faces two main problems, namely the lack of teacher training programs in many areas of the world and the dissatisfaction with conventional theory-into-practice training models.

In spite of the benefits of the online learning, its success relies on a student's ability to engage in the learning process autonomously and actively (Wang, Shannon, & Ross, 2013). Online students are required to be more independent, as the nature of online settings promotes self-directed learning (Serdyukov & Hill, 2013). It is therefore particularly important for online learners compared to their traditional classroom peers, have the self-generated ability to control, manage, and plan their learning actions (Ally, 2004). Such a regulatory process has been referred to as self-regulated learning (SRL; Zimmerman, 2008).

During the past decades, research on self-regulated learning (SRL) has increased enormously and different models have been developed to conceptualize SRL. Although research has shown that SRL has benefits for academic performance (Van Eekelen, Boshuizen & Vermunt 2005) and expertise development (Zimmerman 2006), studies also found that students have problems regulating their own learning and that the development from students towards self-regulating professionals does not occur naturally (Loyens, Magda & Rikers, 2008)

Self-regulated learning has become a central topic in facilitating learning in online learning environments during the past decade. Self-regulated learning strategies have been identified widely in the field of Educational Psychology. Boekaerts and Corno (2005) have defined self-regulated learning as a learning behavior that is guided by “metacognition” (thinking about one’s thinking including planning, monitoring, and regulating activities), “strategic action” (organizing, time management, and evaluating personal progress against a standard), and “motivation to learn”

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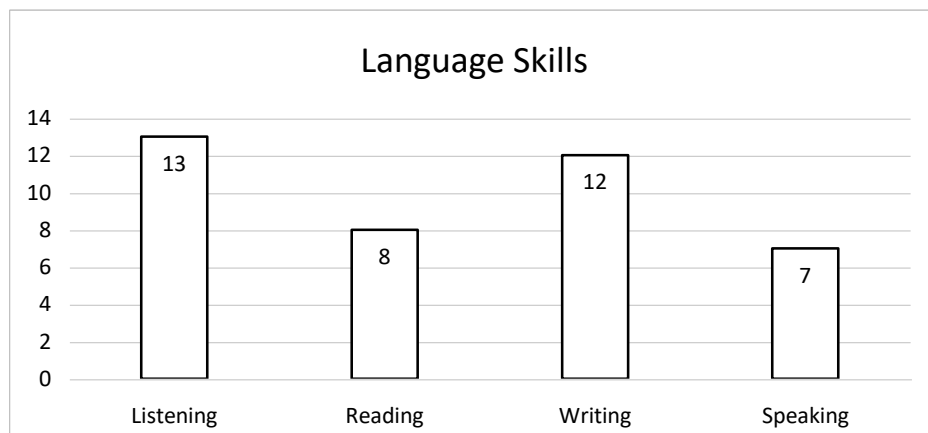
(self-confidence, goal setting, and task value). Learners will choose their own best approach to learn the educational material and gain the study skills they need. To manage these self-regulated learning strategies effectively, learners have to make self-directed choices of the actions they will engage in, or of the strategies they will invoke to meet their learning goals. Self-regulated learning strategies have the potential of becoming study skills and regularly used behaviors. Individuals who are self-regulated learners believe that opportunities to take on challenging tasks, practice their learning, develop a deep understanding of subject matter, and exert effort will bring them to success in an academic area (Winne et al., 2006).

Consequently, the present study aimed at investigating the effectiveness of using a SPOCs-based training program to develop ESP instructors' language skills and self-regulation

### **The pilot study**

In order to provide evidence for the problem of the study, the researcher conducted a pilot study divide into two main steps. Step one is to stand on the

ESP instructors' language skills that they thought they need (Figure 1) and the type of the courses they could use to improve (Figure 2) by using a needs analysis questionnaire (Appendix A).



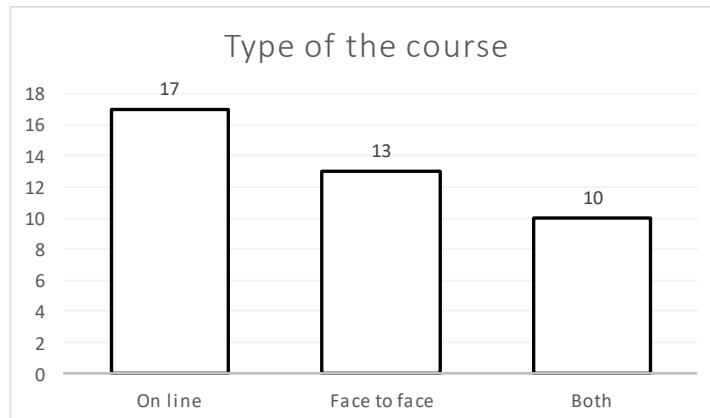
***Figure 1 Results of Language skills required by ESP instructors***

The above bar chart shows the results of Language skills required by ESP instructors. There were forty instructors (N=40) participated in the questionnaire 13 instructors preferred to start with listening skills, while 12



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instructors liked to begin with the writing skills. On the other hand, about 8 instructors wished to develop the reading skills, however 7 instructors liked to work on their speaking skills.



***Figure 2 Types of the courses by the instructors***

The preceded bar chart shows the Results of Types of the courses required by ESP instructors. There were 40 students who participated in the questionnaire; 17 students preferred to take online courses, while 13 out of this forty liked to take face-to-face courses, and 6 students preferred to have both online and face-to-face courses.

Regarding to the next step is to stand on the ESP instructors' language skills that they actually need. The researcher used a standardized test consists of reading and writing parts of the IELTS test based on Cambridge ESOL examination standards. The test was administered to a group of 10 ESP instructors who were willing to participate in professional development courses. Their experience is between 5 to 25 years' in-service. The test is divided into 2 parts. Part A consists of three different passages with 40 questions. The test is designed to assess a wide range of reading skills, such as reading for the main ideas, reading for details, understanding inferences and implied meaning, recognizing a writer's opinions, attitudes and purpose, in addition to following the development of an argument rationally. However, part B consists of two writing tasks. The test is designed to assess a wide range of reading skills, including how well to; write a response appropriately, organize ideas, and use a range of vocabulary and grammar accurately.

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The IELTS scoring scale is a holistic scale which focuses on linguistics and organizational features. The scale has 9-band scale. Scores with band 0 present the minimum (lowest) and band 9 represents the maximum (highest) an almost native-like performance.

**Reading and writing test results are as follows:**

**Table 1: IELTS Reading and writing test results, and years of experience**

#	Reading out of 9	Writing out of 9	Experience
1	6	6	5
2	6	6	5
3	8.5	8	8
4	7	6.5	7
5	5.5	5.5	15
6	6	7.5	10
7	5.5	5	20
8	8	7	5
9	6.5	6	25
10	7	8	12
Number (N)	10	10	10
Mean	6.6	6.55	11.2
SD	1.021980648	1.039498	6.89283

Results shown above demonstrate that as far as reading and writing are concerned, the mean of the reading skills is 6.6 which is considered an indicator of competent to good user performance of ESP instructors. Moreover, the mean of the reading skills is 6.5 which is not much better for the performance of ESP instructors. In reference to these results, it can be understood that generally they have an effective command of the language despite some inaccuracies, inappropriate usage and misunderstandings. Also, they can use and understand fairly complex language, particularly in familiar situations. Although their scores indicate that they are competent to use the English language, they are half way through the scale from the required level. The ESP instructors supposed to achieve better band score reached very good to expert users as they should have fully operational command of the language: appropriate, accurate and fluent with complete understanding of the skills they have to teach.

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### **Statement of the problem**

Based on evidence from previous studies, the researcher's experience and the results of the pilot study, the problem of the present study can be stated as follows: ESP instructors who want to develop their English language skills and self-regulation have problems due to their lack of professional development which is reflected on their poor language/ skills and teaching.

### **Questions**

The present study attempted to answer the following main question:

“To what extent can a SPOCs-based training program help develop the reading and writing skills of ESP instructors and their self-regulation?”

To answer the above main question, the following questions have to be answered.

1. What are the features of the proposed SPOCs-based training program required for developing ESP instructors' reading and writing skills and their self- regulation?
2. What is the effectiveness of using a SPOCs-based training program in developing ESP instructors' reading skills?
3. What is the effectiveness of using a SPOC based training program in developing ESP instructors' writing skills?
4. What is the effectiveness of using a SPOCs-based training program in developing ESP instructors' self-regulation?

### **Purpose**

The present study aimed at:

1. Assessing the present level of the ESP instructors' reading, writing, and self-regulation learning skills.
2. Identifying reading, writing, and self-regulation learning skills needed by the ESP instructors.
3. Identifying the features of the proposed online course.
4. Investigating the effectiveness of the proposed online course in improving reading, writing, and self-regulation learning skills.
5. Contributing to improving the ESP instructors' reading, writing, and self-regulation learning skills.

### **Hypotheses**

This study tested the following hypotheses:

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1. There is a statistically significant difference at the 0.05 level between the mean score of the control group and that of the experimental one on the post administration of the Reading Skills test in favor of the experimental group.
  2. There is a statistically significant difference at the 0.05 level between the mean score of the control group and that of the experimental one on the post administration of the Writing Skills test in favor of the experimental group.
  3. There is a statistically significant difference at the 0.05 level between the mean scores of the control group and that of the experimental one on the post administration of the Self-Regulation scale in favor of the experimental group.
  4. There is a statistically significant difference at the 0.05 level between the mean score of the experimental group on the pre-post administration of the Reading Skills test in favor of the post one.
  5. There is a statistically significant difference at the 0.05 level between the mean scores of the experimental group participants on the pre-post administration of the Writing Skills test in favor of the post one.
  6. There is a statistically significant difference at the 0.05 level between the mean scores of the experimental group participants on the pre-post administration of the Self-Regulation scale in favor of the post one.

### **Design**

The study adopted the quasi-experimental design using two groups: experimental and control. The control group will have their professional development according to the conventional training procedures. The experimental group will have their learner teaching experience within the framework of the proposed SPOC-based program.

### **Participants**

Thirty-two ESP instructors who works at different schools, academies, and universities. They will be divided into two groups, the experimental group (n = 16) will use the proposed SPOC-based program and the control group (n = 16) will use the traditional method.

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## Instruments

The following instruments were designed and used:

1. A pre-post reading skills test for assessing the effect of SPOCs-based training program in developing ESP instructors' reading skills.
2. A pre-post writing skills test for assessing the effect of SPOCs-based training program in developing ESP instructors' writing skills.
3. A self-regulation questionnaire to measure the effectiveness of Using a SPOCs-Based Training Program to Develop ESP Instructors' Self-regulation.

## Results and Discussions

The results of the study were statistically analyzed test in terms of its hypotheses, and they were discussed in the light of the theoretical background and related studies. Results of the study were reported as follows:

### Testing the first hypothesis

The first hypothesis stated: "There is a statistically significant difference at 0.05 level between the mean ranks of the experimental group on the pre- post administration of the reading skills test in favor of the post one."

A Wilcoxon Signed Ranks-Test for dependent samples was used to compare the difference between the mean ranks of the experimental group ESP instructors reading skills test before and after administering the SPOC program.

**Table 2. Results of Wilcoxon Signed Ranks-test of the experimental group on the pre-post- administration of the reading skills test**

	<b>Ranks</b>	<b>N</b>	<b>Mean Rank</b>	<b>Sum of Ranks</b>	<b>Z</b>	<b>Sig. (2-tailed)</b>
total	Negative Ranks	0	.00	.00	3.5	<b>Significant at 0.05</b>
	Positive Ranks	16	8.5	136		
	Ties	0				
	<b>Total</b>	16				

Wilcoxon Z-values for the target reading skills are (3.5) and they all are significant at the level 0.05. Comparing the mean ranks in the pre- post administration of the reading skills test reveals that there are statistically significant differences between the mean ranks of the pre-post-

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administration of the reading skills test in the total score rank. These significant differences are in favor of the post-test.

The mean ranks of the experimental group's post-test implies that the experimental group's level in the overall reading skills test improved due to the SPOC based learning program. This course was presented through the Canvas web site (<https://canvas.instructure.com/enroll/6YJ7CY>) to present the target modules and the extra reading activities such as note, table, flow-chart completion and diagram labelling. This increase indicates the SPOC based learning program. Accordingly, the first hypothesis of the present study is proved and verified.

Such results of the present study show that the experimental group achieved more improvement on the post administration of the reading skills test compared to the pre-test. This is consistent with Ruiz-Palmero, J. Fernández-Lacorte, J. Sánchez-Rivas, E. and Colomo Magaña, (2020) as they showed that there were distinctive educating and learning influences on the SPOC based learning synchronous and asynchronous teaching; it also shows that a form of connections occurred in the SPOC based learning communication; and then it also shows that both the face-to-face and online participants completes relative learning results. It was concluded that employing the SPOCs need to give sufficient assistance to participants in the instructional, social, and learning aspects. In addition to, Arianto (2020) which showed that the experimental group gained a significantly higher rate in their reading skills. Quite probably, the online sessions had promoted more exposure to other reading texts. These sessions may have encouraged the kinds of attitude that was vital in increasing reading comprehension.

### **Testing the Second Hypothesis**

The second hypothesis stated: " There is a statistically significant difference at 0.05 level between the mean ranks of the control group and the experimental group on the post administration of the reading skills test in favor of the experimental group."

A Mann-Whitney U Test for independent samples was used to compare the difference between the mean ranks of the experimental and control group in the reading skills test after administering the SPOC based learning program.

**Table 3. Results of Mann-Whitney -test of the control and experimental groups on the post administration of the reading skills test**

skills	group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Sig. (2-tailed)
s-tot	control	16	8.78	140.50	4.5	Significant at 0.05
	experiment	16	24.22	387.50		
	Total	32				

Mann-Whitney U-values for the target reading skills are (4.5) and they all are significant at sign level 0.05. This indicates that there is a statistically significant difference between the mean ranks of the control and experimental groups at (0.05) level on the post administration of the reading skills test in favor of the experimental group. These differences are due to using the SPOC based learning program. Thus, the experimental group participants outperformed their counterparts of the control group who studied through the regular course. Therefore, the second hypothesis of the study is verified and accepted.

#### **Testing the Third Hypothesis**

The third hypothesis stated: "There is a statistically significant difference at 0.05 level between the mean ranks of the experimental group on the pre- post administration of the writing skills test in favor of the post one."

A Wilcoxon Signed Ranks-Test for dependent samples was used to compare the difference between the mean ranks of the experimental group ESP instructors writing skills test before and after administering the SPOC based learning program.

**Table 4. Results of Wilcoxon Signed Ranks-test of the experimental group on the pre-post- administration of the writing test**

	Ranks	N	Mean Rank	Sum of Ranks	Z	Sig. (2-tailed)
tot	Negative Ranks	1	9.00	9.00	2.6	Significant at 0.05
	Positive Ranks	12	6.83	82.00		
	Ties	3				
	Total	16				

As Table (4) illustrates, Wilcoxon Z-values for the writing skills are (2.6) and they are significant at level (0.05). Comparing the mean ranks on the experimental group pre- post administration of the writing skills test indicates that the significant difference between the mean ranks is in favor

of the post one. The greater mean rank of the experimental group's post-test implies that the experimental group level in overall writing skills test developed due to the proposed SPOC based learning program.

Such results of the present study show that the experimental group achieved more development on the post administration of the writing skills test compared to the pre-test. This result is consistent with Zheng, Chu, Wu, and Gou (2018) Asgari and Antoniadis (2020), Sun and Cheung (2020). These studies proved the effectiveness of using the SPOC in improving writing skill at various academic levels. These studies concluded that participants mostly have constructive awareness about the efficacy of online course in improving their writing. Results also showed that SPOC had supported increase social interaction among the participants, assisted them to be more motivated and autonomous learners, decreased their communication anxiety and enhanced their writing skill. Accordingly, the fourth hypothesis of the present study is proved and verified.

#### Testing the Fourth Hypothesis

The fourth hypothesis stated: " There is a statistically significant difference at 0.05 level between the mean ranks of the control group and the experimental group on the post administration of the writing skills test in favor of the experimental group."

A Mann-Whitney U Test for independent samples was used to compare the difference between the mean ranks of the experimental and control group in the writing skills test after administering the SPOC based learning program.

**Table 5. Results of Mann-Whitney -test of the control and experimental groups on the post administration of the writing skills test**

skills	group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	<i>Sig. (2-tailed</i>
s-tot	control	16	12.12	194.00	58	Significant at 0.05
	experiment	16	20.88	334.00		
	Total	32				

Table (5) indicates that there is a significant difference at (0.05) between the mean ranks of the control and experimental groups on the post administration of the writing skills test in favor of the experimental group.

Comparing the mean ranks of the control and experimental group on the post administration of the writing skills test shows that the experimental group mean ranks on the post writing skills test is (58), while the control



group's mean ranks on the post writing skills test are (58). These values indicate the significant development of the experimental group participants concerning their writing skills over the control group. This implies the effect of the SPOC based learning program on the writing skills. Thus, the third hypothesis is verified and accepted.

### Testing the Fifth Hypothesis

The fifth hypothesis stated: "There is a statistically significant difference at 0.05 level between the mean ranks of the experimental group on the pre- post administration of the self-regulation scale in favor of the post one."

A Wilcoxon Signed Ranks-Test for dependent samples was used to compare the difference between the mean ranks of the experimental group ESP instructors' self-regulation scale before and after administering the SPOC based learning program.

**Table 6. Results of Wilcoxon Signed Ranks-test of the experimental group on the pre-post- administration of the self-regulation scale**

	Ranks	N	Mean Rank	Sum of Ranks	Z	Sig. (2-tailed)
tot	Negative Ranks	1	.00	.00	4.37	Significant at 0.05
	Positive Ranks	12	13	325		
	Ties	3				
	Total	16				

As Table (6) illustrates, Wilcoxon Z-values for the self-regulation scale are (4.37) and they are significant at level (0.05). Comparing the mean ranks on the pre- post administration of the self-regulation scale indicates the significant difference between the mean ranks before and after the administration of the self-regulation scale.

The greater mean rank of the experimental group's post self-regulation scale implies that the experimental group level in overall self-regulation scale developed due to the SPOC based learning program.

Such result of the present study is consistent with Uijl, Filius, and Ten Cate (2017), Yan and Zhao (2019) and Conde Gafaro (2019). The findings of their studies showed that there was a statistically significant. difference in learning language using SPOC when compared with traditional method. Such results showed that found out that SPOC is effective for improving participants' self-regulation skills.

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### Testing the Sixth Hypothesis

The sixth hypothesis stated: " There is a statistically significant difference at 0.05 level between the mean ranks of the control group and the experimental group on the post administration of the self-regulation scale in favor of the experimental group."

A Mann-Whitney U Test for independent samples was used to compare the difference between the mean ranks of the experimental and control group ESP instructor's self-regulation scale after administering the SPOC based learning program.

**Table 7. Results of Mann-Whitney -test of the control and experimental groups on the post administration of self-regulation scale**

skills	group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Sig. (2-tailed)
s-tot	control	16	24.06	385.00	7	Significant at 0.05
	experiment	16	8.94	143.00		
	Total	32				

Table (7) indicates that there is a significant difference at (0.05) between the mean ranks of the control and experimental groups in the post administration of the self-regulation scale.

Comparing the mean ranks of the experimental and control groups on the post administration of the self- regulation scale shows that the experimental group mean ranks in the post self-regulation scale is (38), while the control group's mean rank in the post self-regulation scale towards reading is (13). Besides, the experimental group mean rank in the post self-regulation scale is (38), while the control group's mean rank in the post self-regulation scale is (13). These values indicate the significant improvement of the experimental group participants concerning their self-regulation over the control group. This implies the effect of the SPOC based learning program on self-regulation. Based on the results shown in Table (7) the fifth hypothesis of the study is proved and accepted.

### The Effectiveness of the Program

The formula was:  $r = z/\sqrt{N}$

First, the effect size of the SPOC based learning program on the ESP instructors' reading skills was measured. The formula was:  $r = z/\sqrt{N}$  (Cohen,1988). The following Table (8) illustrates the effect size of the SPOC based learning program on the ESP instructors' reading skills.

**Table 8. Value of effect size and Levels of Effect Size (Reading)**

Independent variable	Domains of the dependent variable	Z	n	Value of Eta –square ( $\eta^2$ )	Level of Effect Size
	Total score	3.5	16	0.88	High

Results in Table (8) the effect size for the reading skills. The effect size ( $r$ ) values are (0.88). It is obvious that all these values exceeded (0.50) which reflects a high effect size for all the target reading skills. The effect size can be explained as follows:

The effect size ( $r$ ) values are 88% of the total variance for the target reading skills points to the high impact of the experimental treatment in this study. The SPOC based learning program developed ESP instructors' reading skills significantly.

Second, the following Table (9) illustrates the effect size of the SPOC based learning program on the ESP instructors' writing skills.

**Table 9. Value of effect size and Levels of Effect Size (Writing)**

Independent variable	Domains of the dependent variable	Z	n	Value of Eta –square ( $\eta^2$ )	Level of Effect Size
	Total score	2.6	16	0.65	High

Results in Table (9) effect size value ( $r$ ) for the writing skill. The effect size ( $r$ ) values are (0.65). It is obvious that they exceeded (0.50) which reflects a high effect size for all the writing skills. The effect size can be explained as follows:

The effect size value ( $r$ ) which is (0.65) for the target writing skills points to the high effect of the experimental treatment in this study. The SPOC based learning program developed ESP instructors' writing skills significantly.

Third, the effect size of the SPOC self-regulation skills was measured. Results are illustrated in Table (10).

**Table 10: Value of effect size and Levels of Effect Size (self-regulation scale)**

Independent variable	Domains of the dependent variable	Z	n	Value of Eta –square ( $\eta^2$ )	Level of Effect Size
	Total score	2.6	16	0.65	High

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Results in Table (10) effect size value ( $\eta^2$ ) for the self-regulation scale. The effect size ( $\eta^2$ ) values are (0.65). It is obvious that they exceeded (0.50) which reflects a high effect size for all the writing skills. The effect size can be explained as follows:

The effect size value ( $\eta^2$ ) which is (0.65) for the target writing skills points to the high effect of the experimental treatment in this study. The SPOC based learning program developed ESP instructors' self-regulation skills significantly.

To sum up, all the effect size values mentioned in Table (8), Table (9) and Table (10) are higher than (0.5) which shows the great effect of the SPOC based learning program developed ESP instructors' reading, writing and their self-regulation skills.

### ***Discussion***

The results of the present study revealed the effectiveness of the experimental treatment. Before the implementation of the proposed program, an Online course was designed to present the Small Private Online Course (SPOC) program to help ESP instructors to develop their reading, writing and their self-regulation skills. The EFL reading skills of the participants were considerably improved including (skimming, scanning, identify the main ideas, recognize the organization of text, determine where specific information is found, find pronoun referents, infer unstated details, distinguish fact from opinion, recognize an author's attitude, understand inferred information, and complete schematic tables). In addition, their writing skills (address all parts of the task, present a clear position throughout the response, present thesis, main ideas, and supporting ideas, organize information and ideas according to writing genre, use reference sources accurately, use appropriate cohesive devices, use paragraphing, suitable vocabulary to the genre, word spelling, use lexical items; collocations, and figurative language, sentence structures, apply punctuation rules, and avoid grammatical errors) were developed.

By the end of the experiment, the experimental group achieved a high level of reading and writing skills. They enjoyed chatting, writing collaboratively, answering some reading assignments, and publishing their answers on the Canvas platform, so their self-regulation was increased as well. This result is consistent with *Zambrano et al. (2020)* who proved the effectiveness of using online courses in the form of SPOC environment in improving student's reading, writing and multimedia skills and promote their satisfaction with professional English course.

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On the other hand, the control group participants who did not have the opportunity to participate in the proposed treatment did not show much progress in their reading and writing skills or in their self-regulation. The results of the study are in line with the results that some studies (e.g., Sitzmann, 2010; Semalty, 2019 and Mostafa, 2019) revealed certain advantages of online courses especially SPOC such as giving immediate feedback for students, the flexibility of handling different content subjects according to the available classes and expanding improving learning experiences.

The results of this study give momentum to other studies that stressed the effect of collaborative learning on learners' achievement. Prates, Garcia, and Maldonado (2019) indicated that adult learners learn better when they use self-directed learning, and they do in completely instructor-directed online educational environment. Moreover, it indicated that the best practices for teaching English language can be achieved through SPOC and LMS.

The results of this study give further momentum to other studies that stressed the effect of using writing tools and activities on learning management systems LMS on learners' writing skills. For example, Sahli (2018)

revealed that integrated Microsoft Word and Google Docs played an effective role in improving learners' writing performance. Also, they revealed that learners generally showed positive attitude towards the implication of online writing tools as a factor leading to success in their writing performance.

Besides, Andreeva, Khalyapina, Almazova, and Baranova (2020). indicated a significant difference was found between the two groups' writing mean score rank after the experiment. Students in the online course group gained higher mean score ranks than those working in groups in a face-to-face classroom. In addition, students reported that they had positive attitudes toward collaborative writing activity and high collaboration in their groups using LMS, while nearly all of them perceived that this learning tool is easy to use.

Furthermore, the results of the study conducted by Oreta (2020) is in the same line with the present study. Oreta study showed the positive effect of using Canvas as an online collaborative learning management system on running language courses in addition to improving participants and instructors' language skills especially reading and writing skills. Besides, it

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was also observed that the experimental group participants were more serious about self-regulation and willing to follow the group convention and practices. They had positive attitudes towards completing reading and writing assignments out of class using different tools included in the platform. This led to gradual improvements in participants language and self-regulations skills.

To sum up, the present study proved that using SPOC program is effective in developing ESP instructors reading and writing skills and their self-regulation skills. Chapter five presents the summary, conclusion, and recommendations of this study.

### **Conclusion**

It was concluded that using small private online course could develop ESP instructors' reading and writing skills and their self-regulation.

### **Recommendations**

*A number of recommendations based on the results and the conclusions could be made as follows:*

1. ESP instructors should use SPOC tools to develop their reading and writing skills and their self-regulation towards reading and writing skills.
2. ESP instructors should be trained on using SPOC in developing learners' reading and writing skills.
3. ESP Curriculum designers must take into their account the importance of embedding SPOC in the syllables of different stages.

### **Suggestions for further research**

*The following suggestions can be considered for further research:*

- 1- Using small private online courses to develop language learners' linguistic competence.
- 2- Using small private online courses to develop oral communication skills among language learners.
- 3- Developing other language skills among language learners such as listening through small private online courses.
- 4- Conducting new research to measure the effect of small private online courses on language learners' achievement and self-efficacy.

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