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Strategic Planning for Electronic Teaching and Learning of English Language Using SWOT Matrix: A Case Study of High School Students in Iran

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ABSTRACT
The tremendous advances in information technology (IT) have brought about extensive changes in various social and cultural fields, including language education. One of the most important changes observed in the field of language education is electronic education. Although using information technology in language teaching has many advantages, it also faces several challenges. The purpose of this research is to examine the strengths and weaknesses of electronic education and propose combined strategies to improve the situation of E-teaching and E-learning of English language in high school students in Iran.In this regard, using the descriptive-analytical method based on the SWOT matrix, the strengths and weaknesses, opportunities and threats of electronic education in teaching and learning English in high school students of Tehran city have been identified and combined strategies have been proposed to improve the current situation of E-teaching an E-learning of English language in high school students in Iran. The analysis of the research findings showed that the most significant strengths of electronic education are having access to education in variable and flexible time and place, attention to individual differences, reduction of distractions, the progression of all learners and the rapid and effective improvement of the level of English language learning in learners, and the most important weaknesses are the need for skill in using technology and high initial costs. In addition, the external factors affecting the electronic teaching and learning of English language are expressed under the title of opportunities and threats.

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1. Introduction

The main challenge of those involved in electronic education systems is to provide powerful learning atmospheres for students. The purpose of powerful learning atmospheres is to develop complex and high-level skills, to deeply understand metacognitive concepts and skills, such as the ability to monitor self-learning (Zamani and Madani, 2011). During Corona pandemic, the balance of the social system was disturbed, and for the restoration, various arrangements, including virtual education, were considered. But due to the lack of experience and the insufficiency of proper infrastructure, virtual education simultaneously confronted with challenges and provided opportunities. It is of crucial necessity to examine the state of electronic education, its opportunities and challenges, regarding the probability of continuing virtual education in educational centers (Ebrahimi, Alishah and Zamanipour, 2021).

During the corona pandemic, various solutions were presented for the continuation of educational programs. The education administration authorities provided education through television, cooperating with Amouzesh (education) channel, aiming at educational justice (Shafaie and Aliyari, 2022). Despite the achievements, it was not possible to provide all the school subjects. Additionally, one of the most important problems of this type of education was the one-way communication and lack of interaction between the teacher and the student. To some extent, this problem was solved after presenting a software called Student Educational Network (literally called Shaad nationwide). In spite of some limitations, it relatively managed to satisfy teachers and students. On the other hand, the corona pandemic led to the flourishing of some capabilities, including the spread and prosperity of virtual education throughout the country. Since virtual education has been upgraded to a new stage and has drawn the attention of the officials towards its importance, it is necessary to increase the usage of virtual education in the country by developing the required infrastructure, such as the development of the nationwide Internet network and increasing its speed, the production of interactive educational software and the application of experiences gained in the pandemic (ibid).

The widespread implementation of E-learning systems across many schools in various areas highlights the necessity of using electronic education. In this regard, considering the confirmed benefits of E-learning, many schools in recent years have started to offer some of their course units through online education platforms (Zhang and Nunamaker, 2003). English learning and teaching using electronic technology also is not an exception.

In recent decades, due to the emergence of the distance education phenomenon, the process of language teaching and learning has undergone significant changes. According to UNESCO (2002) distance education is any educational process in which all or most of the teaching is conducted by someone removed in space and/or time from the learner. Along with the progression of communication and technology, paper-based education is transitioning to computer-based education at a considerable pace, so that both teachers and learners are inclined to use technology in learning and teaching and tools such as the Internet and computers (Sheikhi and Gholami, 2015).

E-learning is closely linked to distance education. At first, distance education was created to facilitate the access of people in remote and rural areas to higher education, but over time and by taking advantage of the developments in the field of communication and technology, it gave way to electronic learning. In other words, the developments of communication technologies, especially the Internet, replaced the traditional concept of distance education with E-learning (Liu and Wang, 2009). Welsh, Wanberg, Brown and Simmering, (2003) define E-learning as the use of computer network technology, over an Intranet or through the Internet, to deliver information and instruction to individuals. Tucker and Gentry (2009) believe that the growing demand for education in university budget restrictions and economic recessions in the world obligates higher education managers to use distance education courses to increase the number of their courses and fields. No requirements for a classroom and a full-time teacher in distance learning courses are the justification. Of course, it should be noted that in order to achieve the optimal educational outcomes, holding such courses requires strategic planning and a formulated and clear implementation process.

Despite the numerous studies that have addressed issues related to language learning with the help of technology, few research has addressed the applicability and feasibility of online language courses (Dashtestani and Kerami, 2018). Moreover, according to Abras and Sunshine (2008), the educational programs of teacher training centers lack the desirable qualification for preparing them to implement online, distance and combined training courses. Therefore, it seems inevitable to arrange and apply an organized and practical program to solve this problem.

Cooper (2004) describes E-learning as an active and intelligent learning that has revolutionized the teaching-learning process and Horton and Horton (2003) believe that E-learning in its broadest sense includes any use of the Internet and the Web for learning goals. They also consider E-learning to be the result of rapid and progressive changes in modern technologies in its true sense. Tafazoli and Pickard (2020) in the review of technology in language education while making the point that along with the technological advances and the emergence of types of literacy related to electronic education and learning, including electronic literacy, ICT[1] literacy, digital literacy, computer literacy, multiple literacy and suchlike by researchers in recent decades, as well as the introduction of new methods of language teaching coupled with the use of the Internet and applied linguistics researchers' special attention to this field of study, it still requires more investigations and implementation research.

Strategic planning is an organized process that involves the following steps (Galloway, 1990):

a. Determining long-term missions and goals,

b. Separation of missions and short-term quantitative and qualitative goals, which is called goal setting,

c. Determining micro and macro policies,

d. Developing procedures and regulations,

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e. Planning and executive planning,

f. Budgeting.

The aim of strategic planning is to enable organizations to navigate the changing environment and achieve predetermined goals. Strategic planning applies periodic investigations to determine what actions should be taken at different time intervals, and especially what should be done at the present time, so that the probability of achieving the predicted goals in the specified times is certain. Future research and strategic plans in order to increase the efficiency and effectiveness of E-learning and distance education are among the things that require researchers' special attention. Proper planning for the successful design and implementation of E-learning in educational organizations, especially schools, is a fundamental task that depend upon knowing the current situation, in terms of possibilities and limitations. Despite this need, there has been limited research in this field Therefore, the main goal of this research is to present some strategies (operational plans) with the help of the SWOT matrix model for the development and promotion of the use of E-learning for teaching English in high schools in Iran. Considering the stated remarks, the high necessity of foresight and developing a strategic program in the field of electronic education, as well as considering the small number of research conducted in this field by domestic researchers and disregarding this crucial issue in Iran by some managers and executive supervisors in Iran's educational system, the present study is conducted regarding the development of a strategic program for the promotion of electronic education for English language teaching in high schools of Iran.

Accordingly, the current research aims to find appropriate answers to the following questions:

1. According to the SWOT matrix, what are the strengths, weaknesses, threats and opportunities of electronic education for Iran's high schools in the English language course?

2. Using the findings given in the SWOT matrix, what strategies can be developed and implemented in order to improve the conditions of electronic education of English for Iran's high schools?

2. Literature review

The SWOT matrix can be defined as a tool for measuring the strengths, weaknesses, opportunities and threats of an organization. Kotler (1988), Kurttila, Pesonen, Kangas, and Kajanus (2000), and Stewart, Mohamed and Daet (2002), define SWOT matrix as a tool for the systematic analysis of the internal and external environments of an organization. According to the guidelines laid down by Cutler (1988), Kurttila, Pesonen, Kangas, and Kajanus (2000), and Stewart, Mohamed and Daet (2002), detecting the strengths and weaknesses within the organization and environmental opportunities and threats can lead to formulating strategies for using the strengths, eliminating the weaknesses, utilizing the opportunities, and confronting the threats. Subsequently, the SWOT matrix analysis aims to one of the four distinct patterns of both internal and external situations in the organization. These patterns are displayed in the four areas of the coordinate axes screen. As stated by Badari and Derabizadeh (2017) and Leiber, Stensaker and Harvey (2018) the first area (SO strategy) is the best situation; it denotes that the institution is enhanced with several environmental opportunities and strengths, motivating the usage of opportunities. This

situation endorses growth oriented strategies. In the second area (WO strategy), the institution is offered one or more valuable opportunities, although it struggles with one or more internal weaknesses. For these institutions, the main strategy is to eliminate the internal weaknesses of the organization to pursue the opportunities. In the third area (ST strategy), the institution has the basic strengths, but it encounters with a disadvantageous environment. In this situation, strategies adopt the current strengths to create long-term opportunities. Finally, in the fourth area (WT strategies), the organization suffers from serious threats along with internal weaknesses; therefore, the organization is in a critical situation and it applies a defensive mode (Badri and Rahbarizadeh, 2017; Lieber et al., 2018).

The present study benefits from this approach, which is one of the main strategic planning approaches, to extract the strengths, weaknesses, opportunities and threats of English E-learning of the high school students in education system of Iran, using an in-depth interview with experts, managers and executive agents. The four areas of the SWOT matrix are shown in Figure 1.

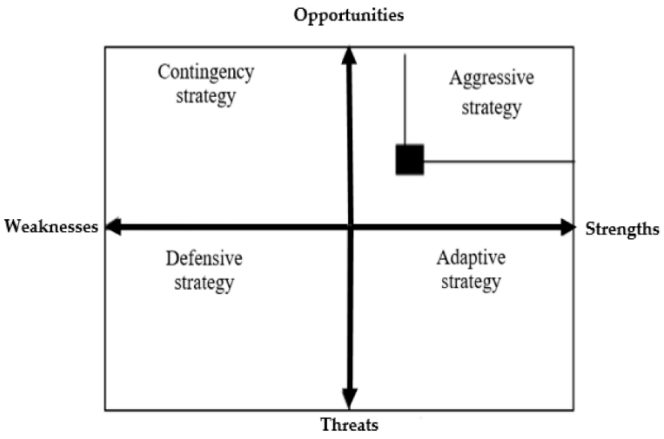

Figure 1. Strategy planning in the SPACE matrix based on SWOT (Goli et al., 2021)

As seen in figure 1, in a SWOT matrix, taking the four dimensions into account, four types of strategies can be formulated. In this research, these four types of strategies are introduced, then by conducting studies and interviews with experts, the strategies devised under these four main strategies are mentioned. In each of these four categories, it has been tried to mention the best items which leads to optimal outcomes for English E-learning of high school students in Iran.

2-1. Iranian Studies

Due to the novelty of this field of study in Iran, most research on various aspects of E-learning have been conducted abroad. A few studies have examined the aspects of E-learning in Iran. For instance, Karim Khanloui, Panahi and Musavi Nasab (2010) compared two methods of E-education and traditional education in teaching English writing skills. The experimental group consisted of 30 postgraduate students out of 100 students who were selected randomly and received the necessary training using the CMC[۲] method. On the other hand, in the control group, the training was done in a traditional way and in the classroom. Using descriptive statistics and comparing the averages obtained from the post-test, the researchers concluded that the group that received electronic training not only performed better in the post-test, but also it was more qualified and skillful in problem solving tasks during the course.

Gholami and Zarei (2011) investigated E-learning in higher education in Iran. In this research, using case study method (Kurdistan

2. Computer-mediated communication

University), a semi-structured interview was conducted with 16 humanities professors and researchers from 16 colleges related to education and research in humanities. The results of their research showed that the traditional mindset towards education among professors, the low status of research and the inadequate access of students to the Internet have led to the fact that electronic education does not have an appropriate situation in teaching and learning, and the professors have no expectation of such technologies except to content reception.

To identify factors affecting the quality of learning in E-learning centers, Mahdiun, Ghahramani, Farasatkhah and Abolghasemi (2013) investigated the quality of learning in these centers. The questions to be asked in this study were: what is the inference of the main education agents about the quality of E-learning and what are the factors affecting the quality of this type of learning. The research method adopted in this study was the phenomenological qualitative method, in which using purposive sampling ,18 managers, experts, and policy makers in higher education, E-learning centers, and students were selected for in-depth interviews. The validity of the research was checked by colleagues using the matching method. To this aim, first, a number of participants reviewed the categories and analysis in the interview and the primary final report and gave their opinions. Then the supervisors and advisors as well as two Ph.D. students reviewed the data and commented on them. Open and axial coding method was used for data analysis. According to the results, 117 primary conceptual propositions, 17 sub-categories and 3 main categorical propositions affecting the quality of E-learning were identified and the relations between them were presented in a structural model. It should be noted that the factors affecting the quality of learning in this research were identified in form of direct causal factors, context and environmental conditions. Direct causal factors included directly affecting deep and effective E-learning and improving the quality of the virtual education system factors. Contextual factors were those crucial and inevitable factors for improving E-learning quality. They included subcategories such as learning culture, educational background and environment, technology infrastructure, and so on. Considering environmental factors as an indirect compelling of E-learning quality, the researchers concluded that the following factors have impacts on E-learning quality: higher education policies, long-term decisions about categories such as Science Ministry policy for electronic education development, higher education experiences, expert supervision on E-learning courses and regarding electronic education certificates as valid courses.

Dashtestani and Karami (2018) investigated the technical, educational and evaluation skills of Iranian teachers in online English language courses. In this research, taking theoretical framework of Compton (2009) on the essential skills for online teaching, the level of English language teachers' perception of online courses was evaluated. The aim of this study was to investigate the level of preparation and perception of English language teachers regarding technical, educational and evaluation skills in online and distance learning of English in Iran. Moreover, the findings could help the language material producers to overcome the existing problems of transition from traditional methods to modern methods and replace them

with the new approaches of education with the help of technology. In this research, 108 English language teachers were selected by cluster sampling method. The samples had used online teaching methods for an average of 2 to 6 years and they all had participated in teacher training courses. The research method was descriptive, using a questionnaire tool with a Likert scoring scale and according to Compton's theory (2009). The obtained average scores showed that English language teachers in Iran are not prepared enough to implement online language courses, and the most important reason for that is their inadequate technical knowledge of using computers and the digital world. Also, the researchers believe that conducting and attending professional workshops on new concepts and methods of education can improve the quality of language education in online courses. Furthermore, the investigations affirmed that the reason for low teacher evaluation skills could be the ineffectiveness of teacher training courses, and according to the authors, holding in-service courses and workshops can be helpful in this situation.

Eghtesad and Mehrabi (2021) probed English and French language teachers' educational content knowledge of technology in virtual education in Iran. To this end they utilized a researcher-made electronic questionnaire to interview 116 teachers of virtual language course with knowledge of TPACK[۳]. In this research, teachers answered a questionnaire consisting of 7 items and 34 questions related to technological knowledge, educational knowledge, content knowledge, technological content knowledge, educational content knowledge, technological educational knowledge, technological educational content knowledge, and contextual knowledge. The analysis of the collected data revealed that despite more than a year of virtual education in Iran due to the spread of the Corona virus, English language teachers are still not qualified enough to use technology in education.

2-2. Non-Iranian Studies

Among the plentiful research that has been conducted internationally in the field of E-learning, some of them are mentioned below.

Welsh et al. (2003) pointed out that the use of network technology for education is one of the latest developing trends in the education industry, insofar as it has been called "E-learning revolution", therefore, in a research they tried to answer these questions: why organizations use E-learning, what are the disadvantages and shortcomings of E-learning, and what is the quality and main point of E-learning in the present time and how will it be in the future. The aim of their study was to provide a precise review of academic studies and teachers' works in order to obtain a better understanding of electronic education. In this research, the method of extensive study of research literature was used along with interviews with managers and consultants who were directly related to E-learning. In the literature review, the articles available in 28 academic journals and 4 educational quarterly along with the Internet data related to the articles and books in the field of E-learning were examined. A large number of companies were considered for conducting the interview, and the people who were interviewed had a direct and decisive role in the implementation of E-learning in that organization. Then the researchers pointed to the

3. Technological Pedagogical Content Knowledge

synchronous (live) and asynchronous E-learning and the issue that many organizations use a combination of both forms. According to researchers' observations, organizations use E-learning for the following reasons:

- **providing consistent, worldwide training**
- **reducing delivery cycle time**
- **increasing learner convenience**
- **reducing information overload**
- **improving tracking**
- **lowering expenses**

Also, researchers have pointed out the potential drawbacks of using E-learning, including:

- **high expenses of online courses**
- **lack of interaction among trainers and trainees and lack of peer-to-peer networking**
- **confining E-education to information provision**
- **complexity of planning, appliance and implementation of E-education**

In response to the quality and main point of E-learning in the present era and in the future, according to the observations of Welsh et al. (2003), many organizations assume that as the technology proceeds and the problems related to the use of technology in education are solved, they also utilize E-learning both on the Internet and Intranet more and more. Moreover, they believe that in the future, learning through smart phones will become much more popular.

In a study that investigated participation in E-learning, Maguire (2005) concluded that despite the high intrinsic motivation to participate in E-learning, low standards of E-learning are among the main concerns of people participating in E-learning. In this research, 13 articles were analyzed, of which 4 were quantitative, one was qualitative, and 8 were both qualitative and quantitative. All 13 articles were conducted with the aim of investigating the motivating and deterring factors in online courses. Also, the results of Maguire's (2005) research showed that the lack of sufficient time, organizational and institutional support, as well as the lack of training, were among the deterring factors of E-learning.

Hsu and Chang's (2009) study of professors' and students' views on E-learning showed that the attitude of professors and students regarding E-learning is generally positive, and the participants in the research considered E-learning necessary for the development of education. Also, these researchers came to the conclusion that in order to strengthen the motivation of students and professors, it is necessary to provide them with more educational facilities and courses and appropriate multimedia content.

Zhu and Mugenyi (2015) investigated various dimensions of E-learning integration in traditional education using the SWOT matrix. Mixed-methods, both qualitative and quantitative research, were used in this research. The sample participants were academic staff. The SWOTs from three aspects were analyzed: institution-related, instruction related and investment-related aspects. The results of their research indicated that teachers consider the integration of E-learning with traditional education as one of the strengths and an opportunity for universities. In addition, the lack of relevant policies, the lack of qualification of some teachers and low investment in this field are among the weaknesses and threats of such integration.

Wasserman and Migdal (2019) examined the attitude of professors towards electronic

education. This study was conducted using a quantitative method. The study population included 495 teachers. The findings indicated four factors related to teachers' attitudes: effectiveness and application, environment, course assignments, and attitudes towards information and communication technology (ICT). Significant differences were found in the environment factor and the attitudes towards ICT factor between electronic and traditional training, in favor of online training. A multi-regression analysis of the data showed that the effectiveness of a course can be determined by the environment, course assignments, and attitudes towards ICT factors. Also, the researchers concluded that generally the professors' attitudes towards electronic education is positive.

In another study, Khaliliya (2020) investigated the attitudes and challenges related to the E-learning system during the outbreak of Covid-19 from the perspective of 280 students of Al-Istiqlal University in Palestine. Descriptive study method was adopted, and a well-designed and pre-tested online questionnaire was used to collect primary data. The findings illustrated that although students generally have a positive attitude towards E-learning, their attitude is greatly influenced by factors such as teacher's computer skills, available facilities, and Internet quality.

Fardani, Agustina and Jauzi (2020) investigated the implementation of information technology (IT) in education environment by means of SWOT matrix to analyze strengths, weaknesses, opportunities and threats of using technology. In this study, first, external and internal factors in E-learning were identified, then the variable value by weighting and rating from 1 to 5 was given to each factor. The number of selected samples in the Slovin formula was used as a source of information to determine the value of each factor. 9 areas of Bekasi (a city in Indonesia) were studied in this research. The results of this study illustrated that E-learning in primary and secondary schools in Bekasi is in a very poor condition, and threatened by many factors. The findings of this research led to a review of planning, organization and implementation in the educational system of this city.

In a study, Shahzad, Hassan, Aremu, Hussain and Lodhi (2021) examined the effects of Covid-19 on the E-learning of students in higher education institutions. In this research, the comparison groups were male and female students. The purpose of this research was to investigate the difference in male and female students' points of view on having access to E-learning portals. In this respect, first, the frequency of entry of male and female students through E-learning portals was compared. 280 students from different Malaysian universities participated in this research. Collecting data from the participants was through Google Surveys in a way that the obtained data were first analyzed in Partial Least Squares Structural Equation Modelling, then the full model was divided into two domains, male and female. In the male model, information and system quality had direct relationship with user satisfaction. Also, there was a direct (positive) relationship between users' satisfaction and their access to E-learning portals. In the female model, likewise, the quality of electronic services, information and system had a direct relationship with user satisfaction and their access to electronic education portals. The researchers concluded that the students' attitudes

towards E-learning is directly related to the quality of educational systems.

Fadzil et.al (2022) used PEST analysis, internal factor analysis and SWOT matrix to find standards to improve the quality of Malaysian higher education centers. Emphasizing the importance of quality improvement at the level of the Ministry of Higher Education and, consequently, higher education centers, the researchers pointed out that a comprehensive analysis can lead to finding useful information for those involved in higher education. The information and data required for this research were collected based on secondary sources of information, including published articles, new researches and government reports related to the quality of higher education. To analyze the collected data, PEST analysis was first used to evaluate the opportunities and threats of the external environment of the Malaysian higher education system from the political, economic, social and technological aspects; After that, internal factor analysis was conducted to analyze the strengths and weaknesses of Malaysian higher education centers. Eventually, the collected data were placed into the SWOT matrix for analysis. Using the results obtained from the review of the data collected from the internal and external environment of Malaysian higher education centers, the researchers analyzed the strengths and weaknesses, opportunities and threats and presented some effective management strategies using the results of the analysis.

Tafazzoli (2022) studied the integration of technology in English language teaching in Spain in a research emphasizing a wide range of technology application in teaching and learning. According to the researcher, despite the many advantages of technology in the field of teaching and learning, many teachers do not use this resource or possibility. This may be due to the problems and obstacles mentioned in past researches. The three main factors for teachers' non-use of technology in teaching and learning include issues related to teachers' problems in using technology (such as not having enough time in classrooms, the need to continuously update the knowledge of using different technologies in the field of education and learning, lack of well supervision for teachers on students' learning, and the difficulty of preparing lessons for teachers), lack of sufficient experience of teachers in using technology (teachers' concern about being replaced by new technologies and work overload) and environmental factors (insufficient number of computer devices and technology problems). He also pointed out that other researchers have conducted research on the role of technology in the field of education and learning and its various aspects in Spain, and acknowledged that it is necessary to conduct more research in this field. To this end, the researcher used the SWOT matrix to examine the strengths and weaknesses and the opportunities and threats of technology integration in English language education in Spain. The people interviewed to collect information and data included teachers and university professors from different countries including the United States of America, Spain and Iran. After examining the data collected in the SWOT matrix, strengths (such as creating a real environment), weaknesses (such as not having enough computer literacy), opportunities (such as personalizing teaching and learning) and threats (such as not having enough participation of students) of integrating technology in English language education in Spain were mentioned.

Examining various aspects of E-learning inside and outside the country shows that this issue has wide dimensions and is also considered one of the most important tools of education in the present era. According to the research conducted in this field, one of the concepts that can be employed to examine various aspects of E-learning in Iran is SWOT matrix analysis.

3. Methodology

The current research is conducted in descriptive-analytical method, in which the desired elements including: categories for the concepts of strengths, weaknesses, opportunities and threats of E-education have been collected, classified and analyzed. Numerical values were then measured based on valid rules and attributed to the text. Statistical methods of content analysis were employed to analyze the relationships between these values. To ensure the validity of categories, each category in the study was examined by the researchers, and differences were reviewed and revised. The purpose of the present study is to use SWOT matrix strategic analysis to extract the strengths, weaknesses, opportunities, and threats of English E-teaching and E-learning at the high schools in Iran. In this regard, in the first stage, the descriptive-analytical method of content analysis was utilized to identify the categories, and then in the second stage, the SWOT matrix analysis was utilized to design and present relevant strategies and applicable plans for the promotion and development of E-education in the field of English language in high schools in Iran; therefore, the current research is considered to be a sequential exploratory qualitative research based on content analysis. The statistical population in this research were experts i.e., language teachers, education managers, and executive and experienced agents in the field of education in Tehran. Regarding the previous statements, conducting a non-random and judgmental method, specifically, snowball sampling, 20 people were selected from the target population as the samples of the study. Also, it is worth mentioning that the concepts (contents) include the strengths and weaknesses of English E-teaching and E-learning at high school level, as well as the opportunities and threats related to it in Iran and categories fall under these four concepts (contents). . In the methodology of this work, first, all 20 interviews were carefully reviewed, and a code was assigned to the frequent opinions of all experts on different categories in each concept (content); then, based on the consensus of the experts on each category, that item was confirmed and selected as a category. In other words, the criteria for selecting and validating a category are based on the number of times it is mentioned by research experts, with more mentions indicating the category's validity. The categories selected by the experts are detailed in Table 1. In short, the following steps have been taken to achieve the categories:

1. Selection of a sample population of 20 people, consisting of people involved in E-education, using the snowball sampling method.

2. Conducting interviews with the statistical population

3. Extracting the categories that express the weaknesses, strengths, opportunities and threats of English language e-learning

4. Coding categories under four main concepts (weaknesses, strengths, opportunities, threats) according to the number of times they were mentioned by the interviewees.

4. Results

The content analysis of the interviews conducted with 20 experts in the field of education including education officials, managers of institutes and language teachers of high schools has been presented in Table 1. As highlighted earlier, the research focused on identifying the strengths and weaknesses, opportunities, and threats of implementing English E-teaching and E-learning at the high school level in Iran. The categories identified in Table 1 encompass the items that are included under each of these four main concepts.

Table 1. Extracted categories for the concepts of strength, weakness, opportunity and threat by content analysis method

main concepts (contents)	categories	experts
Strengths	The willingness of some teachers to benefit from E-learning	P[4]2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	The readiness of most students to participate in online courses	P1, P4, P6, P8, P10, P13, P15, P16, P17, P19, P20,
	The willingness of some educational centers to invest in E-learning projects	P1, P2, P3, P5, P6, P7, P9, P10, P12, P15, P16, P18, P20
	The existence of necessary substratum such as computer and Internet	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	The possibility of learning and improving English language skills without the need for the physical presence of a teacher	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	The possibility of checking and correcting students' activities instantly	P1, P2, P3, P5, P6, P7, P9, P10, P12, P15, P16, P18, P20
	Providing the possibility of fast and cheap learning	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Saving time	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	High flexibility and quick access to educational materials	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Not restricted to a specific location	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	The possibility of adapting education to the needs of learners	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	High variety of methods, strategies and educational processes in electronic learning	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Facilitating group work through creating Internet networks	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Motivating students	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	Increasing the role of students in the learning process	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Ability to provide quick feedback to students	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	[1]Helping students to be independent and autonomous and take responsibility for their own learning	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	The possibility of learning at any time and place	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Familiarizing students with international education standards	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Creating equal educational opportunities for all students	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
weaknesses	Lack of E-learning policies	P1, P3, P4, P8, P10, P13, P15, P16, P17, P19, P20, P11, P9
	Lack of access to computers for all students, and poor Internet	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Lack of sufficient support for E-learning by competent centers	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Lack of familiarity of some teachers and other relevant staff with E-learning	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20

4. person

	Resistance of some teachers to change and use of new technology	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	The inability of students to do some exercises without the teacher's help	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	The impossibility of fully adapting educational materials to the needs of all students	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Not having a strong basis for the exercises presented in learning theories	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	Decreased interaction between students with each other as well as with the teacher	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20, P8, P4
	Decreasing students' motivation due to not receiving quick feedback	P1, P2, P4, P5, P7, P8, P9, P10, P11, P13, P16, P18, P19, P20
	Confusion of students due to absence of teacher	P1, P3, P4, P8, P9, P10, P11, P13, P15, P16, P17, P19, P2
	Failure to properly and accurately evaluate students	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
opportunities	The possibility of creative interaction with other learners in case of availability of substratum	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	The possibility of creating digital libraries for teachers and even for students	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	Making fundamental changes in all aspects of education	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Being attractive to investors in the field of education	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Increasing demand for participation in electronic classes	P1, P4, P8, P10, P13, P15, P16, P17, P19, P20
	Ability to record and view classes in case you miss them	P1, P2, P3, P5, P6, P7, P9, P10, P12, P15, P16, P18, P20
	The possibility of having a large number of students participating in training courses	P2, P4, P5, P6, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Non-interference of the learning process with people's working life	P1,P3, P4, P7, P8, P10, P13, P14, P15, P16, P17, P19, P20
threats	Weak Internet structures in underdeveloped countries	P1, P2, P3, P4, P8, P10, P13, P15, P16, P17, P18, P19, P20
	Low support from governmental centers	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Teachers not being interested in learning the necessary skills	P1, P4, P6, P7, P8, P10, P13, P15, P16, P17, P18, P19, P20
	Average of high age of teachers in governmental educational centers	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Emergence of some cultural and social issues	P2, P4, P5, P6, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Not taking courses seriously by students	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Financial limitations of educational centers	P2, P4, P5, P6, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Low confidence of participants regarding the security of their information in such environments	P1,P2,P3,P5,P7,P9,P10,P12,P15,P16,P18,P20
	High possibility of leaving courses compared to face-to-face classes	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Possible problems of participants during online registration	P1, P2, P4, P6, P8, P9, P10, P13, P15, P16, P17, P18, P19, P20
	Exaggerating the effectiveness of technology to improve learning	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Getting affected of the quality of classes by the economic situation of the country	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Students' getting worried for instability of such courses	P1, P4, P6, P7, P8, P10, P13, P15, P16, P17, P18, P19, P20

	High cost of implementation and maintenance	P1, P2, P3, P5, P7, P9, P10, P12, P15, P16, P18, P20
	Lack of technology and required substratum	P2, P4, P5, P7, P8, P9, P10, P11, P13, P15, P16, P18, P19, P20
	Low computer literacy of some teachers and students	P1, P2, P3, P5, P6, P7, P9, P10, P12, P15, P16, P18, P20

5. Discussion

Considering research topic, the research methodology involved conducting in-depth, unstructured interviews with selected experts in the field of education. The information obtained from these interviews was then analyzed using the qualitative method of content analysis to extract different categories related to the main concepts of the research (strengths, weaknesses, threats, and opportunities). As presented in Table 1, a total of 20 categories were identified as strengths of English E-teaching and E-learning at the high school level in Iran, 12 categories as weaknesses, 8 categories as opportunities, and 16 categories as threats. After conducting the content analysis and identifying the categories related to the strengths, weaknesses, opportunities, and threats of English E-teaching and E-learning at high school level in Iran, the next step was to formulate a strategy using the SWOT matrix method. As shown in figure 1, the SWOT matrix contains four quadrants representing different types of strategies based on the four dimensions of the matrix. In the following sections, these four types of strategies are first introduced, then by referring to the studies conducted and interviews with experts, the strategies formulated under these four strategies are mentioned. In each of these four strategies, it has been tried to bring the best cases that have the best outcomes for the education department of Iran in the field of English E-teaching and E-learning at high school level.

SO strategies

In implementing strengths-opportunities (SO), organizations aim to leverage their internal strengths to take advantage of external opportunities. To achieve this, organizations often employ a combination of weakness-opportunity (WO), strength-threat (ST), or weakness-threat (WT) strategies. When faced with significant weaknesses, the organization seeks to eliminate or transform them into strengths. Similarly, when confronted with major threats, the organization aims to mitigate their impact and redirect focus towards exploiting available opportunities. In the realm of English language E-education, effective SO strategies according to the interviews and results may include:

• Developing robust infrastructure to support participatory activities and interactions between the students and teachers.

• Establishing a comprehensive vision and long-term planning framework to facilitate stakeholder engagement in E-education development in Iran high schools.

• Creating investment opportunities to drive innovation and growth in English language E-education in Iran high schools.

• Building online libraries for the students and teachers to enhance access to English language learning materials.

• Ensuring permanent availability of English language courses for the students to enable flexible learning approaches.

• Equipping all areas with high-speed internet to promote equitable access to E-learning resources.

• Optimizing use of allocated budgets by investing in necessary infrastructure development and exploring alternative financing methods such as private sector partnerships growth in English language E-education in Iran high schools.

• Conducting training sessions for education officials and English language teachers and students to enhance their understanding of evolving English E-education needs and trends.

WO strategies

The WO strategy aims to address an organization's weaknesses by leveraging external opportunities. However, if an organization lacks the necessary internal resources to take advantage of these opportunities, the organization may fail to utilize the opportunities. To implement WO strategies, organizations can consider partnering with other companies that possess the required capabilities or hiring and training skilled personnel to acquire the necessary expertise. The strategies established in this dimension of E-education include:

• Promoting an English language E-education culture in high schools by integrating E-learning topics into students' textbooks and educating parents on its benefits

• Focusing on English language E-education infrastructure in schools, libraries, and similar locations in Iran

• Establishing the necessary rules to optimize English language E-education in Iran high schools

• Monitoring teachers' and students' performance during English language E-education activities

• Offering courses of varying prices (if not free)

• Increasing the authority and participation of teachers in English language teaching in in Iran high schools

• Investing in marketing efforts to promote English language E-learning in the education sector.

ST strategies

The ST strategy aims to minimize or eliminate the impact of external threats by leveraging an organization's strengths. While a strong organization may not necessarily face such threats, in case it does, it can utilize its resources to mitigate them. Some strategies established in this dimension of English language E-education in Iran high schools are:

• Providing network security to protect user information,

• Developing appropriate infrastructure for online courses of English language in Iran high schools

• Allocating the necessary budget to sustain long-term activities of E-learning courses of English language in Iran high schools

• Providing general computer training to high school teachers and students

• Training English language teachers on creating online English language courses and utilizing electronic content

• Identifying factors responsible for the failure of previous English language E-education experiences in high school

• Making existing electronic centers available to all students for English language E-education

• Optimizing E-education processes to reduce costs of English language in high schools

• Empowering human resources in educational organizations to prepare them for E-learning of English language in high schools

WT strategies

The WT strategies involve taking a defensive stance to address internal weaknesses and mitigate external threats. When an organization faces multiple threats from the external environment while also having internal weaknesses, it may be at risk of downsizing or divesting in an effort to survive. The strategies for English language E-education in high schools in this context include:

• Integrating E-learning centers into institutions, schools, and universities

• Establishing strategic partnerships between public and private educational institutions to improve services of English language E-education in Iran high schools

• Continuously improving existing services of English language E-education in high schools

• Utilizing advanced information and communication technologies to create an efficient supply chain in English language E-education in high schools

• Providing facilities and special privileges for the use of E-learning (such as free internet) by educational organizations to encourage adoption of English E-education in high schools

• Adapting educational centers to prepare for English E-education in high schools

• Offering financial and legal incentives and proper infrastructure to attract teachers to adopt English E-education in high schools

• Providing suitable platforms for all members of society to participate in English E-education in high schools development programs and receive better, more transparent education.

The findings of the current research on English E-teaching and E-learning at the high school level in Iran has clarified some strengths, weaknesses, opportunities, and threats in this area. These findings are to a great extent consistent with previous studies in this field. For instance, in the present study, strengths of English E-teaching and E-learning including increased student engagement, real-time feedback, and diverse educational processes were identified which align with those of the research, conducted by Karim Khanloui et al. (2010) in comparison of E-education and traditional education in teaching English language writing skills that found the group receiving E-learning performed better in the post-test and exercise quality. Also, the findings of the current research on the weaknesses of E-teaching and E-learning, including the lack of familiarity of some teachers and students with E-teaching and E-learning and the threats of E-teaching and E-learning, including the weak structure of the Internet and not taking training courses seriously are in line with Gholami and Zarei's (2011) study on virtual education in higher education in Iran showed the traditional thinking about education among professors, low research status, and poor internet access have led to the fact that E-teaching and E-learning have led to not utilizing optimum potentialities of E-education in teaching and learning. In addition, the findings of the current research, highlighting the lack of readiness of English language teachers to use technology in education as a weakness of E-teaching and E-learning of English language in high schools in Iran is in line with the findings from Eghtesad and Mehrabi's (2021) study on Iranian virtual language instructors' technological pedagogical content knowledge.

Comparing the findings of the current research on English E-learning at the high school level in Iran with studies conducted abroad, it is evident that the results are largely consistent with those of foreign studies. For example, the

strengths identified in the present research including motivating and encouraging the students aligns with Maguire's (2005) study on online education participation which found a high level of internal learning motivation in online education participation among student. Furthermore, the weaknesses and threats identified in the present study, such as poor implementation of E-learning, inaccurate student assessment, inadequate support from competent centers, and low computer literacy among some teachers and students are consistent with Maguire's (2005) work which identified issues such as low standards of E-learning, lack of sufficient time, inadequate organizational and institutional support, and insufficient training and internships as problems faced by E-education. Also, the findings of the present study on the strengths of E-teaching and E-learning in English language education at the high school level in Iran are consistent with Hsu and Chang's (2009) study on professors' and students' views on E-teaching and E-learning. Specifically the results of the current research, considering the strengths and opportunities of E-teaching and E-learning, including categories such as the willingness of teachers and students to participate in E-learning and the high diversity of methods, strategies and educational processes in E-learning, is aligned with Hsu and Chang's (2009) findings stating the importance of the attitude of professors and students in relation to E-learning and the need for more educational facilities and courses to strengthen the motivation of students and professors. Likewise, the results of the present research on the strengths, weaknesses, opportunities, and threats of E-teaching and E-learning, on the average, align with Zhu and Mugni's (2015) study using SWOT analysis to examine the integration of E-learning in traditional education which found that teachers consider integration of E-education and traditional education as a strength and opportunity for universities, while identifying policy problems, lack of teacher qualifications, and low investment in this field as weaknesses and threats of such an integration. In addition, the present study's identification of strengths such as willingness of teachers and students to participate in E-teaching and E-learning is also supported by Wasserman and Migdal's (2019) findings on the positive attitudes of teachers and students towards E-learning.

Overall, these findings suggest that addressing challenges and leveraging strengths of E-teaching and E-learning can help improve the effectiveness and adoption of English E-teaching and E-learning in high schools of Iran.

6. conclusion

In this research, the strengths, weaknesses, opportunities and threats of English E-learning at high school level in Iran were identified. The identification of these contents' categories can provide a comprehensive understanding of the current state of English language E-teaching and E-learning in Iran. According to the previous sections, SO strategies can actually be considered as progressive strategies that organizations try to reach and maintain their position in this situation. The findings of the present study show that SO strategies in education at a higher level and in English language E-teaching and E-learning in high schools at a lower level can help institutions and organizations to reach this status and maintain it. For example, the optimum use of the grant budget for the education of educational and electronic infrastructure in the second secondary level can bring education closer to the state of SO.

In the situation of WO, where organizations use direction change strategies, it is necessary that the education faculty eliminate the weaknesses in English language E-teaching and E-learning in high schools in order to utilize the opportunities available outside the organization. For example, in addition to schools, the infrastructure of English language E-teaching and E-learning in high schools should be more concerned in other institutions such as libraries. Also, according to the observations in the present study and considering the state of ST as a state of offering a variety of strategies, the education faculty can use its strengths in order to reduce or eliminate the external threats of English language E-teaching and E-learning in high schools. For instance, the education faculty can reduce the threat caused by the lack of teachers and students sufficient skills on the use of electronic content in teaching and learning English by holding online courses to train the use of electronic content in teaching and learning English. Moreover, organizations in the WT situation use defensive strategies; so, in case of being in this situation, the education faculty should seek the help of other institutions to eliminate its weaknesses and deal with threats outside the organization. For example, the education faculty can create a suitable platform for the participation of all members of society in electronic education programs with the help of other relevant institutions to deal with the lack of use of electronic content by teachers and students for teaching and learning English in high schools.

By considering the strategies presented in each dimension of the SWOT matrix, it is possible to develop necessary infrastructures and facilities to improve and upgrade the status of English E-learning at the high school level through detailed planning and appropriate investment by the Ministry of Education.

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