



Challenges For Implementing Artificial Intelligence In Business Negotiation Classes In Moroccan Higher Education

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Abstract. Artificial Intelligence has become a new popular medium to implement in ESP courses especially soft skills' ones as negotiation skills. Many previous studies have shown that negotiation skills can be acquired not only by face-to-face contexts but also through artificial intelligence-powered tools like chatbots, intelligent tutoring systems, virtual worlds, serious games, and so forth. However, in the late of the 21st century, Moroccan Higher Education is still lacking further behind in terms of utilizing such environments to teach business negotiation skills (BNS). This unsatisfactory situation can be attributed to various factors. The purpose of this article is to tackle the implementation of AI technologies in business negotiation classes with a vision to identify two things: the challenges and factors that impede practitioners from using AI technologies in classrooms and their attitudes and readiness to adopt this new approach. 10 ESP teachers from higher education in three various Moroccan universities were interviewed for data gathering using semi-structured interviews. The findings of this qualitative investigation indicate that there are organizational and pedagogical factors that hinder teachers to utilize AI techs for enhancing negotiation skill training. The outcomes also demonstrate that teachers of business negotiation show their readiness to use such AI technologies in the classroom. The integration of this up-dated strategy of teaching in Moroccan higher education needs a systematic plan to overcome the before-mentioned factors by setting up AI labs to provide negotiation training tools.

Keywords: AI Education, AI Negotiation, Intelligent Tutoring Systems.

1 Introduction

The background as teachers and researchers at ESP has inspired us to concentrate on the application of AI technology with a particular stress on the challenges that hinder practitioners from integrating such tech in teaching business negotiation skills. Difficulties and challenges that we have encountered whenever we try to utilize AI-powered tools in our classes have aroused our curiosity to investigate and scrutinize how

business negotiation teachers deal with these challenges and their willingness to adopt AI-based virtual simulations for enhancing their teaching-learning process. To introduce the ring of truth, this curiosity to tackle such investigative study can be attributed to the widespread of AI negotiation tools and their integration in higher education around the globe.

1.1 Background of the study

Technology has become pervasive and ubiquitous in our daily minutes and no one can deny its tremendous impact on all walks of our life like businesses and education. Educational technology is virtually growing in recent years and offers enhanced possibilities in classrooms. At an ever-accelerating pace, it penetrates all areas of education and rains researchers and educators with a flood of information. “Education currently faces the challenge of adapting to very rapidly changing environments due to technological developments” [1]. So, most Higher educational systems in the world are increasingly influenced and shaped by the infinite number of theories coming from different educational technology research and, thus, let them be aware of e-learning tools in general and artificial intelligence in particular for business negotiation students to foster and enhance their learning, soft skills, and increase motivation, especially with the advent of AI Negotiation and Virtual intelligent agents. In fact, the shift to the importance of utilizing AI Negotiation in higher education is encountering some hinders, in some countries, like educational policies of some governments, inadequate or expensive materials, lack of training for teachers, among others. In fact, it appears that implementing AI technologies in business negotiation classes has become a certain necessity to bring business life or real situations to classrooms and enhance life cycle of teaching and learnability. Aydoğan and colleagues stated that “negotiation has become a well-established research field within the area of artificial intelligence and multi-agent systems, where researchers focus on formalization of negotiation process as well as the design of intelligent negotiating agents, and acceptance strategies” [2]

1.2 Problem Statement

No one can deny the fact that the educational policy in Moroccan higher education has launched many projects related to the integration of e-learning. However, most of these projects did not deal with AI-based virtual learning environments or recommend the implementation of AI in ESP courses like business negotiation courses, with the purpose of bringing real practices and situations to classrooms. This situation can be attributed to the fact that AI-based virtual learning environments (VLEs) has not been matched by practical and sufficient research in the Moroccan context. So, real practices in business negotiation classes using AI-powered virtual agents can foster students' soft skills and motivate researchers for conducting serious research. Therefore, this study investigates the challenges and factors that business negotiation teachers encounter when they think/need to integrate and adopt AIED (Artificial Intelligence Education) especially AI negotiation tools in their teaching practices in Moroccan higher education.

1.3 The Purpose, Significance, and Sphere of the Study

The current study scrutinizes the challenges /or pitfalls for implementing AI-powered virtual environments that business negotiation teachers may encounter and their attitudes about this up-dated strategy. Thus, this study helps to understand teachers' challenges better concerning the implementations of AI-Negotiation tools. The awareness of the challenges will help know teachers' wants and needs and show them the best hows and ways to adopt Artificial Intelligence. In addition, the study is a gateway to explore deep insights into teachers' attitudes and willingness to utilize such technology in three Moroccan universities: Mohammed I University in Oujda, Sidi Mohamed Ben Abdellah University in Fes, and Ibn Tofail University in Kenitra.

1.4 The Research Questions

The research questions are based on two things: the challenges and factors that impede practitioners from using AI-Negotiation tools in classrooms and their attitudes and willingness to adopt this new approach. In this respect, the questions will give a clear-cut image about business negotiation teachers' educational challenges in Morocco. The research questions are as follows: first, what challenges do business negotiation teachers in Moroccan Higher Education encounter in implementing AI-Negotiation tools into their e-practices? And what are their attitudes and willingness towards using this updated strategy?

2 Literature Review

The educational technology has started to flourish with the appearance of artificial intelligence. In other words, if there is a new trend in higher education in which all ESP courses point in the same line, it is the boom and growth of AI Education. McCarthy originally coined the artificial intelligence (AI) in the middle of the 1950s, and then it was known by several different names [3]. For example, Ng [4a] stated that "traditionally, AIED has been used to describe intelligent tutors that help automate students' learning and track their progress so that teachers can offer personalized assistance". In fact, the term has no clear-cut definition since it is considered as a slippery term that can embrace many conceptual terms. "It is usually used as a catch-all for technologies like computer vision, natural language processing, machine learning, and deep learning, it is a wide word" [5]. In light of business negotiation skills courses, AI has been implemented under various concepts as AI Negotiation tools, Negotiation Support Systems, Software Agents, Intelligent Tutoring Systems, Chatbots, and Virtual Agents/Humans; they can be used interchangeably when we talk about AI in business negotiation field. In fact, the AI has proven its effectiveness in terms of hard skills' learnability like science, math, and physics especially during the COVID19 pandemic. However, Less studies have been done on how to impart soft skills like bargaining/negotiation. Negotiation is a social skill that is difficult to master, as we all know, thus using real AI tools will help within training situations; negotiation skills as an unclear field and present a challenge for competent tutors [6]. In this scope, Johnson et al [7] added "this description may be attributed to the absence of specified algorithms and unambiguous evaluation metrics to ensure fruitful results". Another challenge is that the accessibility to negotiation training is limited to few people because of high cost. In this endeavor, recent research has shown the effectiveness of AI in negotiation training with low cost without moving to business contexts especially when it provides both experiential practice and feedback. AI negotiation tools can do many activities. They can be used to train and/ or support human negotiators, to negotiate instead of people, or act as brokers between companies. According to recent studies, negotiation business trainees who negotiate with intelligent agents are able to boost their skills [8]. So, suffice to say, AI negotiation tools can offer tremendous benefits to teachers and students and the only concern is how to provide a healthy background/or environment to implement them

appropriately without any challenges. Such environment ought to be provided by universities via supplying AI negotiation tools and creating AI Labs. Unfortunately, some universities' leaders are not willing to afford positive organizational factors to set up AI materials because of various reasons like a distrust to such new tools, lack of money to afford them, and the claim that some implemented initiatives failed to pursue the demand.

As a true fact, some researchers mentioned that "AIED technologies may be a 'black box' that teachers may not know the working mechanism behind how AI provides such judgements and recommendations for learners" [9]. In this line, English business negotiation teachers in Moroccan universities are predominantly trained to get Doctoral degrees in different fields but most of their degrees are not related to e-learning and communication field. That is why, their unfamiliarity can cause serious challenges and technical pitfalls in the process of implementing AI in classroom activities; "studies have shown that technical pitfalls could seriously reduce the quality of teachers' delivery of content, instructional design, and assessments" [10]. In this regard, Seo et al [11] stated that "they may lack technological experience to conduct data analysis, or to set rules to automatically generate assignments and feedback for students via AI-driven tools". Accordingly, there should be an obligatory initial training for negotiation teachers to get ready for their new instructional approach and get familiar with AI negotiation tools. "Practitioners need to upgrade their skills and knowledge, and connect the tools to content knowledge and pedagogy through continuous professional training" [12]. Then, they will be able to be eclectic which AI tool to adopt. In order to enhance students' learning experiences and expand their potential, teachers have a primary duty to establish relevant learning environments; "such things can help teachers become well-prepared to reduce socialization gaps, technical issues, and barriers that prevent AI systems from achieving their intended goals" [13b]. Therefore, AI proficiency/ or competencies for business negotiation teachers have become very crucial in this digital era if they want to enhance their students' learning. In this respect, "by 2024, 47% of learning management systems in the education sector are predicted to include AI capabilities" [14]. Such fact will oblige and motivate teachers to overcome their personal ambivalence and pedagogical problems via personal and professional developments. "When they face intricate requirements and novel trends, they experience difficulty. (e.g., online learning, AI education) in their classrooms" [15c].

3 Method

Depending on the interpretative approach, we have chosen to use qualitative data collecting and analytic techniques using, namely, semi-structured interviews to scrutinize ESP business negotiation teachers' challenges and attitudes to implement AI in the three Moroccan universities. The selected method, adopted in this study, is pertinent to the research questions so as to fulfill research purposes; the interpretive/constructivist approach has served research giving an upper hand to understand teachers' challenges and attitudes and gaining insights about related issues. As we know, the origin of interpretive social science can go back to Max Weber and Wilhelm Dilthey who talked in details about the interpretive paradigm. "The purpose of the interpretive paradigm is to comprehend how people in everyday natural environments create meaning and interpret the events of their world" [16a]. So, interpreting teachers' answers will lead us to their realities and views about the present topic. "In the social realm, people's intents, sentiments, and emotions are influenced by one another as well as their environment". [17].

3.1 Sample/Participants

A sample is the crux of any research and it should be representative and contain its characteristics. Wimmer et al. [18b] pointed out that "a sample that is not representative of the population, regardless of its size, is inadequate for testing purposes because the results cannot be generalized to the population from which the sample was drawn". In fact, two kinds of sampling are selected in order to achieve study goals, namely probability and non-probability. Cohen et al. stated that "the quality of research is based on the methodology and methods' appropriateness and sampling strategy's suitability. They further argued that research style determines the sample size, which is usually tiny in ethnographic and qualitative studies" [19].

Concerning this study, the purpose was to explore ESP business negotiation teachers' challenges and attitudes of implementing AI in three Moroccan Universities. So, inexperienced instructors at teaching business negotiation skills would not be representative of the population. For this study, we have conducted interviews with ten (10) experienced business negotiation instructors who had at least two (2) years of experience. Two instructors from Mohammed I University in Oujda, four instructors from Sidi Mohamed Ben Abdellah University in Fes, and four instructors from Ibn Tofail University in Kenitra.

Table 1. Demographic Characteristics of Participants

Participants	Gender	Age	Qualification	Experience
1	Female	56	PhD/E-learning and Communication	15
2	Male	37	PhD/Applied Language Studies	7
3	Female	32	PhD/E-learning and Communication	3
4	Male	56	PhD/Linguistics	11
5	Female	55	PhD/Applied Linguistics	13
6	Male	48	PhD/Applied and Culture	8
7	Male	51	PhD/ESL	9
8	Male	44	PhD/ESL	5
9	Female	37	PhD/ESL	2
10	Male	48	PhD/Cultural Studies	6

Instrument(s)

In this article, we have adopted a qualitative research approach to understand participants' challenges and attitudes in terms of the implementation of AI-Negotiation tools. So, semi-structured interview method has been chosen to fulfil the demand. Dörnyei suggested that "interviews could be effective when conducted with a starting sample size of six to ten people" [20]. we have gathered data from ten (10) participants in this study using semi-structured interviews in order to best meet its aims.

Questions for Semi-structured Interviews

1. How long have you been teaching business negotiation skills?
2. How did you get familiar with AI technologies?
3. What are the factors that hinder you to utilize such technology?
4. Taking your experience into account, do you think AI negotiation tools is an authentic e-learning tool a negotiation teacher needs to implement in their classes?
5. How can negotiation teachers overcome such barriers to integrate AI in their classes?
6. Are you willing to implement AI for your future negotiation classes?

3.2 Data Collection Procedures

A set of questions have been written to form the interview with a deep analysis to the questions. We have asked three teachers to review the questions and check if there's any doubt, any ideas or tips for making the questions better in terms of order, structure, or wording. Teachers' advice and recommendations were helpful, indeed, for us. Concerning time management, half an hour or more for each interview because the participants were very enthusiastic to share their ideas and stories plus adding quarter an hour if they intended to add more information. So as to allow ample time for insights into the data, we have decided to give ourselves one week between interviews, choose the right techniques, and follow the procedures of data analysis; the stages of a qualitative data analysis proposed by Miles and Huberman (1994 cited in Wimmer 2011) are: (1) data reduction, (2) data display, (3) conclusion drawing, and (4) verification [21c].

3.3 Data Analysis

As researchers, we have prepared well before the investigation and used *epoche* to avoid our prejudices or viewpoints that can affect the study under investigation. In this respect, "Maykut and Morehouse describe this preparation as *epoche*, the process by which the researcher tries to remove or at least become aware of prejudices, viewpoints, or assumptions that might interfere with the analysis" [22d]. Because of the interpretive analysis, the transcripts of the interviews were analyzed qualitatively in a manual way so as not to automate data and make constraints while coding them. Another reason let us deal with data manually was the small size of the participants. This method allowed to view links between different elements related to data. Thus, the manual analysis, in fact, helps to increase the level of familiarity with data and allow us to repeat reading transcripts freely and discover what is behind the lines. Repetition is very essential in any research because what is repeated is believed and interpretive researchers always strive for depth. After the scrutinization, we have organized them under several categories using the three forms of coding—descriptive, topic, and analytical. In this respect, descriptive coding was first made to identify demographic data about the participants, such as gender, age, and experience. Thereafter, we have switched to topic analysis to organize the themes that the respondents talked about and shared. Lastly, in order to gain a greater understanding of instructors' perspectives regarding AI and how it affects their e-practices, we have employed analytical coding where precise interpretation started. "This step is called analytical coding because it referred to coding from understanding and reflection on meaning" [23]. This was a crucial stage because it took a long time reviewing the transcripts and trying to approach a concise framework. Next, we have categorized and arranged the themes and sub-themes into three headings. Lastly, we have deleted unwanted data during the processes of codification and categorization, especially the repetitive and irrelevant ones.

4 Results and Discussion

During the analysis, the research and interview questions served as the basis for the formation of the themes. we have grouped and, then, coded the themes and sub-themes under categories in order to access them easily. Such engagement has macadamized our way and let us see relations between data collected from different participants.

One of the present study's goal is to investigate practitioners' challenges when they need to implement AI Negotiation tools in their practices. Furthermore, hidden messages 'beyond the lines' of participants' answers was taken into account. The last phase was combining the data altogether to make sure that all the content had been included. Honestly, these things have helped us to get detailed scrutinization of problems associated with teachers' challenges in implementing artificial intelligence negotiation tools in business negotiation classes and their attitudes about their willingness to adopt them at three Moroccan universities, namely Mohammed I University in Oujda, Sidi Mohamed Ben Abdellah University in Fes, and Ibn Tofail University in Kenitra. we have explained the key factors contributing in hindering teachers from utilizing AI and reporting their attitudes about their willingness to adopt the tools.

Within this segment, we have attempted to answer the first research query: What challenges do business negotiation practitioners in Moroccan Higher Education encounter in implementing AI-Negotiation tools into their e-practices? We have investigated various themes related to teachers' challenges during the process of the implementation of AI. In this section's second portion, we have tried to answer the second research question: What are their attitudes and willingness towards using this updated strategy?

Theme 1. Organizational and pedagogical challenges in implementing AI

Before tackling the challenges, it is important to show that all participants (ten out of ten) are familiar with AI negotiation tools either via internet or PhD specialty or qualification. Only two teachers utilize AI, namely participants (1) and (3) because their PhD is related to E-Learning and Communication whereas other participants' PhD has nothing to do with educational technology. So, specialty is correlated with the AI usage. To be explicit, the few numbers of teachers who use AI can reveal that there are serious challenges and difficulties, impeding others to give a shot. Therefore, so as to recognize and have a particular stress on teachers' challenges in implementing AI in the three Moroccan universities, we have told the participants to feel free for sharing the challenges they encounter. The analysis is mainly based on the data gathered from the participants' responses to the interview questions.

Ten out of ten participants in this study declared various organizational and pedagogical factors that they encountered in the process of implementing AI Negotiation Tools in their classrooms. For example, a participant (1) stated that:

"I think that lack of budget to afford AI Negotiation tools and the idea of investing in AI is like luxury. These factors, indeed, deprive business negotiation students from new opportunities. Recently, I am using Chatgpt" (Participant 1)

In the same line, participants (3) and (5) talked about decision-makers and the shortage of resources:

“Artificial intelligence implementation should have intelligent institutions “decision-makers. They are not aware of the effectiveness of AI in teaching such skill and limited resources deprive me to implement AI, especially online; I use it for preparing negotiation scenarios at home” (Participant 3)

“I have never used AI negotiation tools. leaders who are ready to set up AI laboratories should do that quickly if they want to modernize business ESP’s negotiation skills.” (Participant 5)

It was clear that the majority of comments fall on the same line of the previous answers. For instance, participants (7) and (9) maintained that:

“For me, lack of initiatives from officials at universities will make us to stay further behind. Also, we should have training and AI competencies.” (Participant 7)

“Institutional leaders claim that insufficient funding behind unwillingness to provide AI. In addition, they are afraid of illegal access to students’ personal information when they use AI tools. We still have, in fact, a gloomy vision about AI” (respondents 9)

Participant (2) also stated that:

“The organizational and pedagogical factors may include two main factors: the first one is a lack of equipment that may help this to become reality. The second one is to afford training for business negotiation teachers by universities so as to integrate such technology”. (Participant 2)

Other respondents shared common views about the challenges in terms of lack of specialists of AI competencies inside universities. Participants (4) and (6) declared that:

“Some teachers prefer to teach business negotiation skills in a traditional way as face-to-face interaction especially if they did not take preservice or in-stu training. Personally, I doubt that algorithms can simulate complex scenarios with human behaviour”. (Participant 4)

“For me, I see that AI is ineffective to teach soft skills as negotiation skills especially if it is not integrated seamlessly into the curriculum and to provide personalized feedback for students”. (Participant 6)

The two remained respondents (8) and (10) addressed that:

“Some previous initiatives in the west failed to give fruitful results even though they have a solid background to experiment AI negotiation tools. We should build first our self-efficacy” (Participant 8)

The participant (10) supported the previous idea via stating that:

“Lack of AI pedagogical resources and limited classroom time are considered as the main barrier for me when I think about AI implementation. To my mind I prefer to teach face-to-face.” (Participant 10)

The data analysis of this study revealed that the organizational and pedagogical factors are interconnected. Participants (1), (2), (3), (5), (7), and (9) declared that organizational factors lie to lack of budget, skeptical institutional leaders' policies and initiatives to the success of integrating AI, and the safety of students' personal information. Ng et al. pointed out “a number of challenges such as insufficient funding, immature AI curricula, and lack of tools or evaluation methods” [24]. The first challenge is the key element for solving other challenges; “adopting AI technologies can be expensive, both in terms of initial investment and ongoing maintenance” [25]. “Concerning maintenance and safety, institutions must ensure that proper protocols are in place to protect sensitive information and maintain transparency regarding data usage” [26]; “this goes in line with distrust of institutions and its intentions regarding the wellbeing of faculty” [27]. In fact, leaders of institutions have a responsibility to turn traditional teaching methods into dynamic learning experience via providing AI-powered tools for business negotiation teachers as participant's (5) view when she talked about setting up AI laboratories. As Hogan best stated that “we can't be teaching tomorrow's leaders today with yesterday's methods” [28]. James Wetherbe (from Texas Tech University) maintained that “the biggest obstacle to innovation is thinking it can be done in an old way” [29]. These ideas, in fact, support participant's (7) view when he talked about the importance of AI competencies for practitioners; “the quality of teachers is fundamental for development” [30]. In order to do so, training workshops are mandatory for AI competencies. Other participants, mainly (2), (4), and (7) made a particular stress on training to hone AI skills in classrooms. This matches with the views of many researchers who recommended sufficient experiential trainings for teachers so as to compensate the weaknesses of traditional teacher education. Participant (4) argued that teachers should undergo to “preservice or in-stu training” in terms of AI competencies. In fact, these phases will play a paramount role where teachers can be fortified with AI competencies and abilities that will utilize in their classes as novice teachers.

Theme 2. Teachers' attitudes and willingness to implement AI technologies

Concerning the attitudes and willingness about the implementation of AI technologies, all the participants are business negotiation practitioners. Most of them (seven out of ten) showed their willingness/readiness to adopt AI negotiation tools in classrooms since they believed that effective continuous professional development cannot be achieved without the implementation of technology in their pedagogical practices. For instance, participants (7) and (8) from Kenitra university maintained that:

“In this digital era, teachers must not stay in the margin. We should master how to use AI properly if we need to survive. For me, AI negotiation technologies will surely help me more” (Participant 7)

“Self-efficacy, as I told before, is important for me if I need to use AI; it cannot reach it without training or at least mini-workshops. I am willing to adopt it” (Participant 8)

It was evident that the majority of answers like participants (1), (2), (3), (5) and (9) go hand in hand with the previous answers concerning their positive willingness to use AI technologies. For example, participants (1), from Oujda University, and (9), from Fes University, stated that:

“Despite the challenges, I am using Chatgpt and other AI tools for bringing real scenarios for my students. It is a driving power for honing negotiation skills” (Participant 1)

“No one can deny the importance of AI technologies if we want to get rid of abstractedness in our classrooms. It is a transformative way for empowering our pedagogical practices. I will start to utilize AI during my upcoming sessions.” (Participant 9)

However, Other respondents shared different views about their willingness to adopt AI technologies. Some of them seemed to have some personal contentedness towards innovative tools. For example, participant (10) who taught at Sidi Mohammed Ben Abdallah University in Fes said that:

“To be honest, I prefer to teach face-to-face method. I feel at ease when I use traditional teaching methods. They are very simple and easy to utilize” (Participant 10)

The two remained respondents (4) and (6) declared that:

“As I said before, I doubt that algorithms can simulate complex business negotiation scenarios with human behaviour. some teachers, including myself, prefer to teach business negotiation skills in a traditional way as face-to-face interaction. Thus, no need for AI technologies and students may share the same view”. (Participant 4)

“For me, I see that AI is ineffective to teach soft skills as negotiation skills. I like to use paper-based learning, role plays and the whiteboard”. (Participant 6)

It seemed that the respondents stressed different reasons for using or refusing AI technologies in their class activities. The participants who showed positive attitudes and readiness to utilize AI negotiation tools made a particular stress on the following words: digital era, self-efficacy, driving power, transformative way, getting rid of

abstractedness, and real scenarios. The former, digital era, and the latter, real scenarios, are interconnected. “These teachers are aware of this golden era because of its various benefits to improve the quality of education like bringing realism especially the use of artificial intelligence” [31]. Describing AI as a driving power and transformative way or method, for enhancing and honing students’ negotiation skills, reveal that teachers expect a significant change in their traditional instructions because they know that AI technologies with strong algorithms are able to provide them with personalized feedback, and create complex scenarios in a realistic business environment. Most empirical studies supported these results. Forbes Advisor’s Survey, for example, showed that “more than half of the teachers believed that AI has had a positive effect on the teaching and learning process whereas less than 1 in 5 cited a negative effect” [32].

In addition to that, self-efficacy is, as participant (8) said, very essential for the implementation of AI. For instance, Ke et al. scrutinized “self-efficacy in the training of teaching via implementing live simulation and VR-based simulation” [33]. They wanted to understand the effects of self-efficacy on pedagogical practices and teaching quality. Thus, self-efficacy can be affected by various factors or constructs like instructional strategies that are aligned with the objectives of using AI technologies. However, self-efficacy cannot be grown without AI competencies through training in pre-service, in-situ, and post-service.

5 Conclusion

This study investigated business negotiation teachers’ challenges in the process of AI implementation in Moroccan higher education. Besides, it showed their willingness towards adopting the tool. The results, in fact, provided future researchers with a clear-cut image about the nature of the challenges that practitioners encountered whenever they intended to implement AI negotiation tools at different universities in Morocco. It also showed that the majority of teachers wanted to utilize such techs in their future classes.

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