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Exploring Algerian EFL Students' Perceptions about Learning Styles and Learning Development in Higher Education

استكشاف مفاهيم طلبة اللغة الانجليزية الجزائريين حول أساليب التعلم وتطور التعلم في مرحلة التعليم العالي

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Abstract

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This research aims to delve into Algerian EFL students' perceptions about learning styles and learning development in higher education as a first step towards moving higher education from the simple delivery of lessons to the development of students' learning styles flexibility and adaptive abilities. To this end, a questionnaire is used to collect quantitative and qualitative data from 46 first year students at the department of English Language and Literature at Mohamed Lamine Debaghine University Setif 2. The results show that students have limited perceptions about learning styles considering them as sensory fixed traits. The students have also admitted that they face difficulties in adapting their ways of learning to the different learning situations. More importantly, the findings reveal that the majority of the students do not perceive a clear focus on their learning development in higher education. Nevertheless, they admit their need to develop and learn how to adapt to the different learning situations. These results are intended to shed light on the importance of learning style flexibility and learning development in higher education.

الكلمات المفتاحية: ملخص

الخطاب
الإجفاف
الفكاهة
التعالي.

يهدف هذا البحث إلى استكشاف مفاهيم الطلبة حول أساليب التعلم وتطور التعلم في مرحلة التعليم العالي وذلك كخطوة مبدئية نحو النهوض بأهداف التعليم العالي من مجرد تقديم المحاضرات والدروس إلى تطوير مرونة أساليب تعلم الطلبة وقدراتهم على التأقلم مع مختلف الوضعيات التعليمية. ولبلوغ هذه الغاية تم استخدام استبيان لجمع البيانات الكمية والنوعية من 46 طالباً في السنة الأولى في قسم اللغة والأدب الإنجليزي بجامعة محمد لمين دباغين سطيف 2. وقد أظهرت النتائج أن لدى الطلبة تصورات ومفاهيم محدودة حول مصطلح أساليب التعلم وأنهم سبق أن واجهوا صعوبات في التأقلم مع مواقف ومتطلبات التعلم المختلفة خلال تجربتهم في التعليم العالي. والأهم من ذلك أن النتائج قد كشفت أن غالبية الطلبة لم يلاحظوا تركيزاً واضحاً على تنمية أساليبهم أو قدراتهم في التعلم في هذه المرحلة. بالرغم من ذلك فقد أقر الطلبة حاجتهم إلى تطوير تعلمهم و التكيف مع متطلبات ومواقف التعلم المختلفة. تهدف هذه النتائج إلى تسليط الضوء على أهمية تطوير التعلم وأساليبه في التعليم العالي.

1. Introduction

The need to move with higher education from the simple delivery of lessons and lectures to the development of students' learning and ways of learning is growing every day especially with the urgent and accelerated need for e-learning during the covid19. It is in fact an urgent need to shift from a content model concerned with transmitting information and skills to a process model concerned with providing procedures and resources for helping learners acquire information and skills by themselves (**knowles & Associates, 1984**). Such a move is aimed to not only help students succeed in their studies at university but also prepare them move from the classroom to the work environment and, eventually, create successful, autonomous, life-long learners and professionals.

To achieve these aims, instructors, according to (**Sims & Sims, 1995**), can benefit from understanding and applying certain principles of learning when designing and applying their learning programs. Thus, a neglect or misapplication of the appropriate principles of learning could easily result in educational outcomes that fail to meet the aimed results. As such, with the wide recognition of the learner centeredness, the active learning process, the intellectual development, in addition to learning styles and differences, most research strongly differentiate between the learning principles and methods applied to children and those applied to adults (**Sims S. J., 1995**).

As a result, being the main managers of the educational process, higher education teachers in all the different academic fields including EFL (English as a Foreign Language), need to rely on teaching models that are based on the principles and assumptions of how individual adults learn. Of course, it is also important for students, being the centre of the teaching learning process, to be aware of the different theories and principles related to their learning processes and development as adults. This would help to develop students' active and effective learning abilities and help them learn how to learn.

However, Dunn (**2000, p. 3**) claims that many teachers as well as students do not make a distinction between adult learning and children learning and continue

teaching and learning without taking these principles into consideration. One outcome, according to her, is that at least 25% of first year students fail or are placed on probation when they need to intuit what's important in the lecture or from what they read, take notes, remember three quarters of what they read or hear in the lecture, and even prepare for exams and tests simply because they are used to being spoon fed.

Similarly, Kolb and Kolb (**2013, p. 23**) also assert that many students come to university conditioned by their previous educational experiences to be passive recipients of what they are taught which hinders the learning development process. Yet, what exacerbates the problem is the fact that "the way university teachers approach their teaching in a range of large first year classes in higher education is associated with the way their students approach their learning in those classes" as stated in Prosser and Trigwell's research (**1999, p. 159**). In other words, university teachers tend to adapt their teaching to students' learning ways, hence, reinforce their students' passivity when they continue to spoon feed them instead of helping them develop and overcome their learning weaknesses. These claims shed light on the importance of students' and teachers' awareness and consideration of adult learning principles, learning flexibility and development methods such as the Experiential Learning Model.

English Language and Literature, being one of the academic fields in higher education, also needs to take all the previously mentioned principles and assumptions related to adult learning and learning development into consideration. However, a big void in the literature related to adult learning, learning style flexibility and learning development was noticed in EFL. As such, the current research is an initial attempt towards filling in this gap in the EFL literature. Therefore, two focus group discussions were conducted with (05) EFL students and (03) teachers at the English Language and Literature Department at Mohamed Lamine Debaghine Setif 2 University to gain a general idea about students' and teachers' awareness about adult learning and learning development. The results revealed the participants' limited awareness from the side of students and lack

of consideration from the side of teachers of adult learning principles especially as far as learning styles flexibility and learning development are concerned. These results conform Dunn's (2000) and Kolb & Kolb's (2013) previously mentioned claims about the classroom reality.

Consequently, the current research comes to further explore Algerian EFL students' perceptions about learning styles and learning development. The purpose is shed light on the importance of learning development through the enhancement of students' learning styles and flexibility to create autonomous and life-long learners. In other words, the objective is to raise awareness about the importance of learning styles and learning styles flexibility to help students in general and EFL learners in particular adapt their learning ways to the different learning demands inside and outside the classroom especially that they are at the last educational stage and are eventually heading towards the professional life.

Accordingly, this research addresses the following questions:

1. What are students' perceptions about their learning styles?
2. What are students' perceptions about learning development in higher education?

2. Literature Review

Both teachers and students must have enough knowledge and understanding of the learning process in general and adult learning in particular in order to be able to overcome the different obstacles and difficulties in enhancing students' ability to learn. Knowles' (1980) andragogical model and Kolb's (1984) experiential learning model (ELM) are among the most famous frameworks offered for understanding adult learning and the ways in which the teaching-learning process and individual learning styles can affect adult learning and development (Sims & Sims, 1995).

Introducing his andragogical model in the 1980s, Knowles (1980) claimed that many of the assumptions about the characteristics of learners in the pedagogic model do not fit adult students. Consequently, he

based the principles and practices that fall under the umbrella of andragogy on several crucial assumptions about how adult learners are different from children. Margolis and Bell (1984, p. 17) as cited in Sims & Sims (1995, pp. 3-4) provide a useful summary of those assumptions distilled from Knowles's major works:

1. Adults are intrinsically motivated to learn as they develop needs and interests that learning will satisfy.
2. Adult orientation to learning is life- or work-centred.
3. Experience is the richest resource for adult learning.
4. Adults' self-concept moves from that of a dependent personality toward one of increasing self-directedness. That is, adults are more independent and ready to develop their learning autonomy compared to children.
5. Individual differences among adult learners increase with age and experience. Therefore, adult learning programs must pay special attention to differences in style, time, place, and pace of learning.

These assumptions, emphasizing adults' readiness for learning flexibility as well as their autonomy and individual differences and unique experiences, help understand adult learners from humanistic, philosophical and psychological perspectives. Darkenwald & Merriam (1982) also maintain that these assumptions represent much that is essential about adult learning and development and shed light on the necessity of moving from the pedagogical to the andragogical model in higher education. However, a crucial question on how to make this shift from a pedagogy approach to an andragogy approach that promotes flexibility and independent learning has occurred in higher education. Thus, Sims & Sims (1995) and Zhang, Sternberg & Rayner (2012) offer Kolb's (1984) Experiential Learning Model (ELM) as an answer to this question.

According to the Experiential Learning Theory (ELT), learning proceeds as a cycle and results from the integration of all four learning modes or abilities — concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE) (Kolb D. A., 1984). However,

David Kolb (1981) asserts that individuals tend to develop preferences among these abilities in what is called a learning style (LS): accommodating, diverging, assimilating, and converging styles. These four basic learning styles have been further refined into a nine learning style typology that better defines the unique patterns of each style and represents and assesses the individuals' learning flexibility level through the Kolb Learning Style Inventory 4.0 (Kolb & Kolb, 2018).

Unlike many other learning styles models, the experiential learning style framework is holistic, including affective, perceptual and behavioural as well as cognitive strategies. According to Kolb (1984, pp. 25-38), the experiential learning theory is built on six principles that are conveniently congruent with the previously mentioned principles of andragogy:

1. Learning is best conceived as a process as opposed to content and outcomes.
2. All learning is a spiral and continuous process grounded on experience.
3. Learning results from the conflict of dialectic poles of the learning cycle (reflection, action, feeling and thinking).
4. Learning is a holistic process of adaptation to the world.
5. Learning results from transactions between the person and the environment.
6. Learning is the process of creating knowledge through the transformation of experience.

Besides, the Kolb Learning Style (KLS) model does not consider the learning style as a static innate characteristic of the adult learner but rather as adaptive, flexible, developmental and generic competencies (Kolb & Kolb, 2005; Kolb, Boyatzis, & Mainemelis, 2001; Passarelli & Kolb, 2021 in press). Consequently, according to the KLS model, adult learners can develop their learning abilities and styles to style-flex from one learning style to another to respond to the different learning situations and demands.

Kolb & Kolb (2018) asserted that this recognition of learning styles as developmental and flexible

preferences clarifies the confusion in the learning style literature that has resulted in the oversimplified prescription that educators should match their teaching style and methods to their learners' learning styles. Consequently, they proposed the dynamic matching model of ELT as a more complex but more realistic model for guiding educational practices that aim for more meaningful and developmental goals. They further explained that matching teaching styles to learning styles has been shown to be important at the beginning to connect with and engage learners. However, most learning requires that they continue to move actively around the learning cycle using other learning styles to learn in other situations and acquire other skills and subject matters that do not match their learning styles. As such, the Kolb dynamic matching model of ELT aims to consider the relationship between educators' and learners' styles in addition to the match of learning styles to the subject matter demands (Kolb & Kolb, 2018). As a result, in this model, teachers must adapt their roles in a way that helps learners move around the learning cycle so that learners are sometimes matched with the learning activity and sometimes challenged to stretch themselves to use less preferred styles (Kolb & Kolb, 2017). Therefore, this model describes four common educator roles – Facilitator, Subject Expert, Standard-Setter/Evaluator and Coach (Kolb & Kolb, 2018).

These theoretical and practical approaches to learning, learning styles, and learning development make ELT and the related KLS model one of the most interesting, practical and realistic models for adult learning development and higher education practices. This claim is also supported by Sims & Sims (1995) and Zhang, Sternberg & Rayner (2012) who view ELT as one of the most important and effective models for teaching adults how to learn.

To recap, many recent theories and approaches assert the qualitative and major differences between children learning and adults learning and emphasise the importance of adaptive flexibility, learning development, learning autonomy and lifelong learning. Therefore, this research comes to highlight the importance of learning development by providing an alternative to the overused and ineffective

traditional information transmission model.

3. Research Methodology

Forty-six adult students participated in this research. They were first year students from the Department of English Language and Literature aging between 18 and 21 years. The majority of the participants (44) were females while only (02) were males. A convenience sampling technique was adopted. All the participants had been in the literary stream in the secondary school. Thus, they had the same educational background. The study was conducted by the end of the academic year to ensure that the participants had enough time and experience at university to have clear ideas and perceptions about learning in higher education. It is worth mentioning that a lecture about learning styles is actually scheduled and taught for first year English language students in an academic course called Techniques du Travail Universitaire (TTU) which means that they are supposed to have at least a general idea about the term.

4. Data Collection and Research Materials

To answer the research questions, the exploratory quantitative and qualitative approaches were adopted using a questionnaire. This tool aimed at gaining insights about students' perceptions about learning styles and learning development in higher education.

Questionnaire

The questionnaire was used in this study in order to elicit descriptive statistics as well as qualitative data about the participants' perceptions (Cohen, Manion, & Morrison, 2000). The questionnaire was distributed to 58 first year students at the department of English Language and Literature at Mohamed Lamine Debaghine Setif 2 University but only 46 questionnaires were returned.

This tool comprised of a number of questions that were aimed to explore students' perceptions about learning styles and learning development. It was organized into three main sections. The first one was about demographic information (age, gender, stream in the secondary school). The second section investigated the students' perceptions about learning styles in general, their awareness about their own learning styles and their adaptive flexibility. It also

investigated their perceptions about the effectiveness of their learning styles for learning in the different courses as well as for learning outside the classroom.

The third section was dedicated to explore students' perceptions about learning in higher education with regard to learning development: higher education aims, the adopted teaching methods, the differences between learning in higher education and learning in the secondary school, as well as their perceptions about the effect of learning in higher education on their learning development. The questionnaire varied between yes/no questions and five-point likert scale questions that ranged from strongly agree (SA) to strongly disagree (SD) and neutral or not decided (N).

The purpose of the study and the anonymity of their participation were explained to the participants prior to the distribution of the questionnaire. The participants were also given enough time to respond to the questionnaire.

5. Data Analysis

The Statistical Package for Social Sciences (SPSS) was used to depict the data obtained from the questionnaire in the form of numbers (No) and percentages (%). The descriptive and interpretive approaches were then adopted to analyse the participants' quantitative and qualitative responses that were classified and juxtaposed to one another in order to make clear classifications, comparisons and interpretations.

6. Findings, Analysis, Discussion, and Results

This study aims to explore students' perceptions about learning styles and learning development in an attempt to shed light on the importance of learning styles and learning development. As mentioned before, all the participants were adults aging between 18 and 23 years. In addition, all the participants had been in literary streams in the secondary school and this means that they generally had had similar academic backgrounds in the secondary school.

6.1. Research Question 1

The first research question attempted to explore students' perceptions about learning styles in general and their own preferences in particular.

Table 1: Students' Perceptions about Learning Styles (L.S.)

Questions	YES		NO	
	N°	%	N°	%
Q1. Do you know what a L.S. is?	41	89.13	5	10.87
Q2. Are you aware of the type of your preferred LS?	24	52.17	22	47.83
Q3. Do you believe that L.S are flexible?	9	19.56	37	80.44
Q4. Do you think you can adapt your LS to different learning situations and demands?	17	36.95	29	63.05
Q5. Have you ever felt that your L.S. does not fit the demands of certain courses?	35	76.09	11	23.91
Q6. Do you think that understanding one's LS's strengths and weaknesses is important?	40	86.95	6	13.05
Q7. Is your LS effective for learning independently outside the classroom?	8	17.39	38	82.61
Q8. Do you think learners need to change their LS depending on the nature of the learning situation?	7	15.22	39	84.78

The majority of the respondents claimed their awareness of what learning styles meant with a percentage of 89.13% while only 10.87% did not know what the term referred to. Besides, 52.17% of the participants said that they knew what their preferred learning styles were. However, 80.44% of the participants said that learning styles were innate and not flexible or changeable which reflects their limited perceptions of the term that were restricted to the receptive learning styles (auditory, visual, kinaesthetic, tactile).

In addition, the majority of the participants (76.09%) claimed that they had felt that their learning styles did not fit the different demands of certain courses in higher education and 63.05% also affirmed that they could not adapt their learning style to the different learning situations and demands. These results proved the existence of a mismatch between the students' learning styles, the teachers' teaching style, and the course demands and requirements. However, Kolb D.A. (1984) asserts that students' success in any academic discipline relies heavily on students' ability to respond to the different learning demands of the learning situations or the discipline they are engaged in.

In addition to that, only 17.39% of the respondents believed that their learning styles were effective for learning independently outside the classroom while 82.61% did not. This means that the majority of the students did not have the necessary abilities to learn

autonomously and therefore they could not learn effectively outside the classroom without the teachers' help.

Nevertheless, the majority (86.95%) were aware about the importance of understanding their learning styles' strengths and weaknesses in learning development. This in fact, is an essential and positive step towards learning development. However, only 15.78% claimed that they were aware about the importance of learning style flexibility when admitted their need to change their learning styles depending on the nature of subject matter and the learning situations and demands.

These data have revealed students' limited perceptions of learning styles' nature especially as far as adaptive flexibility is concerned. They also confirmed that many learners faced problems with their learning styles in higher education. In other words, these results shed light on the urgent need to raise students' awareness about learning styles and learning flexibility.

6.2. Research Question 2

The second research question aims to explore students' perceptions about learning development in higher education. It investigates students' beliefs and perceptions about higher educations' aims, practices, and outcomes with regard to learning styles and learning development.

Table 2: Students' Perceptions about Learning Development in Higher Education (H.E.)

Statements	SA	A	N	D	SD
1. I've noticed that there is more focus on the development of the learning processes and abilities in H.E than in the secondary school	10.87	28.26	34.78	19.57	6.52
2. I believe that H.E.'s main aim is the delivery of all the necessary knowledge and content related to the different fields including EFL	19.57	43.48	17.39	15.22	4.35
3. Teachers in H.E. have to match their teaching styles to the students' L.S.	10.87	39.13	26.09	19.57	4.35
4. Teachers use many different teaching styles in the same lesson	0.00	19.57	28.26	39.13	13.04
5. Students in H.E. need to learn how to adapt their L.S. to the different learning demands and situations	34.78	45.65	10.87	8.70	0.00
6. I'm facing problems coping with the learning demands in H.E.	39.13	30.43	8.70	15.22	6.52
7. H.E. has helped me understand my responsibility over improving my own learning inside and outside the classroom	24.78	26.09	28.26	18.70	2.17
8. Learning in H.E. is helping me learn how to adapt my L.S. to the different learning situations and demands	4.35	19.57	23.91	47.83	4.35
9. Learning in higher education has helped me learn how to learn and become an autonomous learner	2.17	23.91	26.09	32.61	15.22

This section of the questionnaire started with investigating students' perceptions about the aims and objectives of higher education. The results revealed that many students were confused about higher education's objectives as compared to secondary school education in the sense that the biggest percentage of more than 34% of the participants were not decided about the existence of any differences between the two. On the other hand, many students agreed and strongly agreed (10.87% and 28.26 %) that there was more focus on the development of the learning processes and abilities in higher education than in the secondary school while 19.57 and 6.52% did not notice bigger focus on learning development at university. This indicates that the focus of higher education on the development of the learning process and abilities was not sufficient or at least was not clearly perceived by the students.

In addition, the majority of the students (43.48 % and 19.57%) agreed and strongly agreed that the main aim of higher education is the delivery of the necessary

knowledge and content related to the different fields including EFL (English as Foreign Language) rather than the development of the necessary learning skills and abilities that would help the students learn the English language or any other subject. This has shown that students had a traditional perception of the learning aims as being a simple delivery of lessons and lectures and passive transmission of knowledge and information. The participants also agreed and strongly agreed that teachers in higher education must adapt their teaching to the students' learning styles with a majority of 10.87% and 39.13 % while 26.09% were neutral and 19.57% and 4.35% disagreed with the statement. These data again revealed students' misunderstanding of the learning styles nature as being innate and unchangeable and, hence, teachers should match and adapt their teaching styles to the students' styles in order to facilitate the learning process which according to Kolb & Kolb (2018) does not help to stretch and develop students' learning styles.

Moreover, only 19.57% of the participants claimed

that the same teacher used many different teaching styles in the same lesson while 39.13% disagreed and 13.04% strongly disagreed and 28.26% were not decided about it. This question aimed to find out if teachers were actually providing different challenging situations that would according to Kolb & Kolb (2018) present opportunity for learners to go around the learning cycle and, thus, provide opportunity to develop students' learning styles and flexibility. However, the participants did not perceive considerable variety in the teachers' teaching methods and techniques and they believed that their teachers use the same teaching style in communicating knowledge.

Nevertheless, when asked about whether students needed to learn how to adapt their learning to the different learning demands and situations only 8.70% disagreed with the statement while the majority (34.78% and 45.65%) strongly agreed and agreed while 10.7% were neutral. This again revealed students' confusion about learning in general and learning styles in particular. That is, in spite of the fact that students admitted their need to develop their learning styles and adapt to the different learning demands they still expected from teachers to adapt their teaching styles to their styles as shown previously in question 3. These data, in fact, confirm Kolb & Kolb's (2013) and Dunn's (2000) claims that students' do not make a distinction between children learning and adult learning and that they come to university conditioned with their previous educational experience expecting to be taught in the same way as in the secondary school.

Besides, the majority (30.43% and 39.13%) also agreed and strongly agreed that they faced problems with coping with the learning demands in higher education opposed to 15.22% and 6.52% students who disagreed and 8.7% who were neutral. These results again confirmed Dunn's (2000, p. 3) claims that students are put in probation when they come to university because they are not used to its teaching and learning methods and demands.

Furthermore, the majority of the respondents strongly agreed or agreed (24.78% and 26.09%) that higher

education helped them understand their responsibility over improving their own learning inside and outside the classroom. Yet, a good percentage of 28.26% were neutral about it. In addition, when asked about whether learning in higher education was helping them learn how to adapt their learning styles to the different learning situations, more than 47% disagreed with the statement while only 19.57% agreed and 23.91% were not decided (neutral). Finally, Only 23.91% asserted that learning in higher education had helped them learn how to learn and become autonomous learners while the majority disagreed and strongly disagreed (32.61% and 15.22%) and more than 26% were neutral about the statement. This again revealed that students did not think that higher education focused on developing their learning skills and styles in a way that would help them become autonomous learners.

These data revealed students' perceptions about the practices and outcomes of their learning in higher education. It is worth mentioning that relatively big percentages of the participants had neutral answers concerning their perceptions about learning development which revealed their confusion about the aims, practices and even the outcomes of the teaching-learning processes in terms of learning development in higher education. The data also showed that many students did not perceive a clear emphasis on the development of their learning at university.

7. Conclusion

Learning in higher education is more about the development of students' learning abilities and skills rather than the simple delivery of lectures and knowledge. Therefore, efforts are to be directed towards understanding adult learners, their learning differences and styles, as well as the different learning processes in order to be better able to create learning environments that help learners develop their learning and become autonomous life-long learners.

As such, exploring the higher education learning reality is an important step towards this aim. Consequently, this study aimed to explore students' perceptions about learning styles and learning development in higher education. The results revealed that students were highly aware about the

importance of understanding their learning styles. However, their perceptions of the term learning style itself were limited and not clear in the sense that the majority considered that learning styles were limited to the sensory preferences and that they were not flexible and could not be changed or developed. In fact, this belief that learning styles are fixed traits that cannot be extended or promoted is what hinders students learning development as it puts students in a passive and dependent status thinking that their learning style must always be matched by the teachers for an effective learning process. And this actually is what feeds students' expectations that teachers have to continue teaching them in the same way they were taught in the secondary school (Kolb & Kolb, 2013).

The data also showed that the majority of the students believed their learning style did not fit the demands of the different learning courses and their styles are not effective for learning independently outside the classroom. This research also revealed a big confusion and uncertainty regarding students' perceptions about the practices and aims of higher education. Many of them, for example, believed that the main aim of higher education was the simple delivery and transmission of knowledge. They also revealed their traditional conviction that teachers must simply match their teaching styles to the students' learning styles although they also claimed that students needed to learn how to adapt their ways of learning to the different learning situations and demands. In addition, many students reported that learning in higher education did not effectively help them learn how to learn and develop their learning abilities and autonomy. This study, as a result, shows that the Algerian higher education does not clearly focus on the development of students learning process and is still implementing the traditional and old fashioned educational methods that rely on the simple delivery of lessons and lectures. These results also reveal the urgent need to raise students', teachers', and decision makers' awareness about the importance of learning styles and learning development to create autonomous and life-long learners who are able to be successful students and future professionals.

On this basis, further research can investigate both

students' and teachers' perceptions about learning development in higher education to better understand students' and expectations and teachers' practices. Comparative studies between secondary or middle school learners' and university students' perceptions about learning and learning development would also be of importance. Eventually, some quasi-experimental studies would as well be interesting to test the effects of methods and approaches that are aimed to develop students' learning skill, abilities, and styles, such as the experiential learning method, on students learning styles and learning development as well as the different EFL skills enhancement such as speaking, writing, etc.

Conflict of Interest

The authors declare that they have no conflict of interest

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