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# Appraisement of Motivation and English Learning Using Weighted Product Method

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Abstract. Student motivation is one of the most significant aspects determining their acquisition of English. Performance motivation has long been a concern for teachers and scholars in the field of foreign language learning. However, there is still a need to understand how to improve English learners' motivation by identifying the types of students' motivation to learn English in early conditions and factors affecting sustained motivation in the long process of learning English, particularly in the Chinese context. The purpose of this paper is to explore the motivation of Chinese English speakers to learn English, focusing on non-motivational factors. This review examines recent studies on the importance of motivation in learning a second or foreign language. Motivation is a crucial component that explains the reasons for success or failure in each difficult task. The researcher defines and explains the term "motivation" in this thesis. By reviewing earlier research, identifying the conditions that foster motivation, and pinpointing key motivating variables, this article discusses the function of motivation in language learning. Motivation is emphasized as a crucial part of learning English as a second or foreign language in the literature. Researchers and educators have largely adopted motivation-enhancing techniques as one of the most crucial components of acquiring a second language (L2). The purpose of the current study was to examine the function of motivation and the variables influencing students' motivation when studying or teaching English as a foreign language. Factors related to parents, environment, and teacher attitudes were explored. The study included 40 participants from the Department of English Language Teaching, and a survey with numerous linked reports on the stated factors was administered to the participants. The study illustrates those tactics and actions that encourage students but stifle optimistic mindsets about learning English. The findings show that there is more motivation when parents encourage their children to learn English. Research also indicates that learners are motivated when they work with peers who are also motivated. Furthermore, the findings of this study offer a number of behaviors and teaching methods that promote learning.

**Key Words:** English Learning Motivation, Main Types of Motivation, Previous Studies about the Role of Motivation in Language Learning, WPM methods

#### 1. Introduction

Motivation acts as the key motivator for beginning L2 acquisition and as the engine that keeps the protracted and frequently challenging learning process going. According to Tony (2001), when people decide to pursue anything, their answers determine how hard they will work at it and how long they will be willing to stick with it. Motivation is the direction and breadth of human conduct. All non-English speaking college students in China are required to take English. That is, learning English is a significant subject outside of language classrooms in the context of foreign language learning, where L2 is frequently taught as a school subject commonly employed as a light-hearted form of communication. Whether students are naturally motivated or develop it through classroom experiences, Hedge (2000: 23) underlines that motivation is crucial in the classroom. However, according to Crooks and Schmidt (1991), when teachers inquire about a student's motivation, they are typically more interested in whether or not they are studying, or at the very least, their activities. Whether or not the teacher monitors the behavior of the students in the classroom. Ellis (1994) asserts that although language teachers readily recognize the significance of learners' motivation, they infrequently use their pupils' lack of motivation to address their own feelings of failure. However, teachers frequently are not aware of the unique reasons why their pupils want to learn a second language. Our ability to fully comprehend students' motivation for learning a second language is hampered by teachers' ignorance of students' true motivations (Oxford et al. Sherwin 1994). Additionally, according to Hedge (2000), there are numerous motivational factors for beginning foreign language study, but staying motivated is another story. Therefore, it is important to pinpoint the root reasons and potential motivators of English language learners. This has an impact on students' long-term motivation, particularly in practice, for teachers looking to increase student motivation. When it comes to enhancing pupils' English learning performance, motivation is crucial. In a study conducted by (1998), the importance of motivation was highlighted. Motivation is considered a crucial element and one of the most significant variables that influence language learners' success in learning a second language (L2). It is widely acknowledged that learners who are highly motivated are more likely to be effective in learning a second or foreign language. Educators recognize that certain motivational aspects are crucial for students learning English as a second language to strengthen their skills and practice using it in daily life. To determine which approaches among these aspects might enhance learning, the current research examined motivating factors related to parents, environment, and teachers' attitudes among learners. The section on factors relating to teacher attitudes explored teachers' responsibilities and the use of specific motivational tactics in their classrooms. The study also investigated parental factors, focusing on how parental attitudes and ideas about children's English education affected their children's English learning. Additionally, the research explored environmental elements that inspire learning.

#### 2. English Learning Motivation

Understanding students' motivation for learning English is crucial for making English learners successful. Recognizing students' problems and creating a comfortable atmosphere in the classroom are urgent considerations for teachers. With better motivation, learners can respond to learning situations, seek opportunities to acquire the English language, take advantage of practice opportunities, possess analytical skills, adapt to the learning situation, value their learning, and take risks. Undoubtedly, motivation is a key factor in the success or failure of a complex endeavor, including learning English worldwide. Chung, Pint-rich, and Meeker (2008) defined achievement motivation specifically as a "basic motor." Motivation prompts a decision to act. The roles of motivation in learning and how it influences learning were validated by Uno (2009). Learning objectives are made evident through reinforcement and incentives, and motivated learning becomes sustainable. Astute researchers added that motivation psychologically influences both the learning processes and outcomes. Students engage in activities when they are more motivated to learn. Therefore, teachers should focus on increasing students' desire to learn English. They often overlook the fact that all their teaching actions are mediated through student motivation. In this way, the classroom's flow is managed by the students. Without student motivation, the classroom would be lifeless. Teachers who integrate practical strategies for increasing student motivation into their instruction become content and effective educators, promoting motivation and the success of second language acquisition. Motivation is explored as a factor in various approaches. Two different attitudes separate basic types of motivational orientations (Brown, 2007). The two primary subtypes of motivational orientation are integrative and instrumental. The term "instrumentality" refers to learning a language for specific purposes, such as job advancement, technical education, achievement, translation, and so forth. Assimilation describes language learners who seek to interact socially with the target language group and assimilate into its culture. Gardner (1985) made a distinction between integrative motivation and instrumental motivation in language learning, which is in line with Brown's perspective. Different factors influence the success of second language acquisition when considering these two motivational styles. In general, the most compelling aspect of the entire motivational construct is that English teachers may convincingly claim that students are intrinsically or extrinsically motivated to succeed in English activities (Brown, 2007). He defines intrinsically motivated actions as those that offer no immediate benefit. People appear to participate in activities purely for enjoyment and not in search of external rewards. Extrinsically motivated activities try to provide a reward from outside and beyond the self, whereas intrinsically motivated behaviors aim to produce some internally rewarding outcome, such as a sense of competence and self-determination. These two motivational factors have differing implications for students' progress in language acquisition. Because intrinsic motivation fosters competence, autonomy, and self-actualization, it is more potent than extrinsic motivation.

#### 3. Main Types of Motivation

The intrinsic/extrinsic dichotomy has influenced motivational research, and these ideas have been applied in diverse explanations of motivational variations among different learners. A student who is intrinsically driven learns because they want to. According to (1996), intrinsic motivation is defined as "the drive to engage in an activity for its own sake," and drive theory states that humans have certain innate basic psychological needs. It should be mentioned that this artificially produced intrinsic motivation. In the educational process, teachers of languages are discouraged by some students' claims that they lack intrinsic desire. As vocabulary teachers, it is our responsibility to improve students' motivation. Extrinsic motivation mobilizes the positive forces of intrinsic motivation. Students are constantly being urged to adopt a superficial approach through extrinsic motivation. Students pay close attention to the significance or worth they place on their effort and results. Extrinsic motivation is the desire to participate in a particular activity. Extrinsically driven students behave in ways to earn rewards like degrees or avoid penalties like bad grades. Both extrinsic and intrinsic motivation have an impact on how motivated junior middle school students are to study, but extrinsic motivation has the biggest impact. Motivation is not driven by the method but rather by what can be achieved by taking the action. Dominant extrinsic drive comprises the need for present promotion, charismatic reinforcement, peer recognition, and praise. Dominant intrinsic motivation includes curiosity, thirst for knowledge, competition, and curiosity.

### 4. Previous Studies about the Role of Motivation in Language Learning

According to studies, students are organically motivated to improve their speaking and reading abilities as well as by knowledge and success (2010) [1]. Reading comprehension and other characteristics of reading, such as reading comprehension, are significantly impacted by intrinsic drive, according to Guthrie (1997) [2]. According to [3] (2001), Turkish students read for both intrinsic and extrinsic reasons, which shows that they have favorable views regarding the activity. [4] (2012) found that students who have a positive outlook are more motivated to study English. They serve as both catalysts and unifiers. According to Chang (2010) [5], the classroom environment has an impact on students' motivation, and they feel at ease encouraging their peers. Another conclusion was that inattentive students inspire their peers to learn, and [6] (2009) asserts that instrumental motivation is more crucial to EFL learning than integrative motivation. The study's other finding suggests that integrative motivation is better suited to ESL learning. [6] (2009) found that motivated and active language learners. Students were observed to be really motivated to study English. [7] (2004) found that motivated students

spend more time pursuing their language learning goals and are better able to learn a language than disinterested students. [8] (1999) felt setting required for motivation and that the language learner is comfortable in this ideal state. [9] (2000) stated that learners who study a language can attain levels of proficiency in the target language. According to Good et al. (1994) [10], teachers should establish a productive learning environment for their students because motivation cannot be fostered in a rigorous classroom. They stated, "Effective language acquisition occurs in a relaxed and friendly classroom, extrinsic incentive is not related to the choice of language learning modalities" (2008) [11]. They emphasized that Iranian EFL students are naturally motivated. [9] (2000) examined the effects of integrative and instrumental motivation on the English proficiency of Iranian EFL students. The findings of this study revealed a substantial difference between the English proficiency test results of students who were intrinsically motivated and those who were not motivated.

#### 5. MCDM is WPM methods

A Weighted Product version (WPM) is used to address the hassle of routing decisions. This proposed scheme considers a relational assessment system. The relaxation the paper follows is organized in Section III, while the application is discussed in Section VI, and an assessment of the challenge is provided in the Related Works section (VII) [15]. Weighted Product (WP) and Ideal Through solution (TOPSIS), etc., are extensively used techniques in decision making. However, the two techniques are not comprehensive in their assessment studies. This study aims to compare the two strategies by examining their complexity and accuracy. The complexity size was determined using the complexity of the cycle, and their accuracy was calculated based on the error rate obtained. The first step in WPM is to determine criteria based on work standards and weightage requirements. WPM stands for Decision making described in sentences with multiple selection criteria [16]. The result can be expressed in a matrix, where the primary mathematical operation involves multiplication instead of addition. This method is a simple combination, similar to the weight (SAW) technique. More details about this method are given in the MCDM book. Assuming that a given MCDA problem is described in terms of m options and n choice criteria [17]. The Weighted Product Method (WPM), added in 1922 by Bridgman, has proven to be a very reliable approach for selecting multiple criteria. It has been researched for three or more criteria, and up to a hundred criteria have been successfully used in WPM by many researchers. WPM has been used to solve multi-criteria decisions, such as selecting a boarding house, choosing an appropriate diet, and addressing decision-making problems related to housing choices for individuals [18]. The approach was calculated and implemented in an online-based system. The main goals of this study are to develop a home selection model using WPM, calculate and rank advice values, and implement a decision support system in an online-based environment [18]. The weighted product approach in this model involves multiplication instead of addition. Each alternative is compared to others by multiplying various ratios. A major drawback of the weighted product method is that it can overstate the importance of key evaluative criteria, resulting in undesirable effects. The last score is not always a reliable indicator of support or fixes for an alternative with respect to a criterion [19]. The Weighted Product (WP) method calls for a normalization method, where each evaluative result is multiplied and then compared (divided) by constant values. For benefit attributes, the weight serves as a positive ranking multiplicative function, while the value weight acts as a negative ranking [20]. The Weighted Product method converts each bid into an estimate to provide a new scoring feature. Two types of bidding models, namely characteristic bidding models and primary bidding models, are introduced based on assumptions. Finally, the product-weighted approach is a way to solve the FMADM problem. "This method evaluates more than one alternative form of attributes or standards. Synthesis: each characteristic is separate. According to the weightless product approach, each characteristic score has to be raised to boost its corresponding characteristic weights [21]. The use of multiplicative techniques to mix the rating attributes is recommended. WPM research using excessive spatial resolution remote sensing facts, such as Landsat types of sensors, is becoming important, along with MODIS. Nevertheless, the common unavailability of high-resolution photographs is a limiting factor. Countries where rigorous data is required can encourage WPM research using remote sensing [22]. Heat-stable WPM and sufficient amounts of caseins, previously aggregated whey proteins, are used to completely cover the surface of the fat droplet. These results will contribute to the development of heat-stable whey protein-rich emulsions. The proposed methods provide better accuracy and faster computational performance when compared to other decision-developing techniques. Techniques for bauxite mining are proposed to determine the mining approach. The results of these techniques are compared with methods used in previous studies. Regular cut and fill approach is maximally suitable. The results show that the mining method [23]. WPM inside lipid droplet surface after emulsion formation, the composition is now determined, and the thermal stability and microscopical evaluation of emulsions at 120°C are conducted. WPM temperature is consistent during the continuous phase of emulsification, but due to fast relation of emulsions, in hot emulsions, fat droplets appeared to be attached via WPM [24]. Unlike caseins, WPM is found on the lipid droplet surface because the heat balance of the emulsion is low, and restoration in excess whey protein concentrates allowed. This study shows that mixing heat-stable whey protein-rich broths together is very possible." [25].

TABLE 1. Motivation and English learning

Tribbe 1. Wouverfor and English Carming				
	Male	Female	Prefer not to say	Percentage
Teaching Chinese as A Foreign Language	36.61	18.25	22.33	43.53
Tourism Management	34.88	19.36	24.58	42.94
Business Administration	39.42	20.54	25.21	45.58
Computer Science and Technology	36.52	15.69	22.16	49.28
Accounting	39.25	19.27	22.69	47.11
International Economics and Trade.	32.66	14.58	54.32	46.41

This table 1 shows that the value of dataset for Motivation and English learning in weighted product method Alternative: Teaching Chinese as A Foreign Language, Tourism Management, Business Administration, Computer Science and Technology, Accounting, International Economics and Trade. Evaluation Option: Male, Female, prefer not to say, percentage.

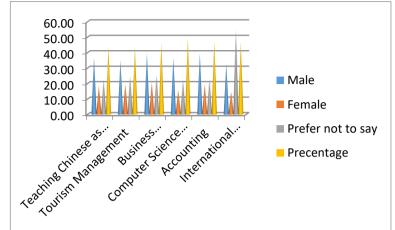


FIGURE 1. Motivation and English learning in weighted product method Data Set

Figure 1 shows that the value of dataset for Motivation and English learning in weighted product method Alternative: Teaching Chinese as A Foreign Language, Tourism Management, Business Administration, Computer Science and Technology, Accounting, International Economics and Trade. Evaluation Option: Male, Female, prefer not to say, percentage.

TABLE 2. Motivation and English learning in weighted product method Performance value

Performance value			
0.92872	0.88851	0.99239	0.98645
0.88483	0.94255	0.90155	1.00000
1.00000	1.00000	0.87902	0.94208
0.92643	0.76388	1.00000	0.87135
0.99569	0.93817	0.97664	0.91148
0.82851	0.70983	0.40795	0.92523

Table 2 shows that the values of Motivation and English learning in weighted product method for Performance value using weighted product method find the pair wise comparison value for Teaching Chinese as A Foreign Language, Tourism Management, Business Administration, Computer Science and Technology, Accounting, International Economics and Trade.

TABLE 3. Motivation and English learning in weighted product Weight age

Weight			
0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25

Table.3shows the Weight ages used for the analysis. We have taken same weights for all the parameters for the analysis 0.25.

TABLE 3. Motivation and English learning in weighted product Weighted normalized decision matrix

Weighted normalized decision matrix			
0.98168	0.97088	0.99809	0.99659
0.96987	0.98532	0.97442	1.00000
1.00000	1.00000	0.96828	0.98519
0.98108	0.93488	1.00000	0.96616
0.99892	0.98417	0.99411	0.97710
0.95406	0.91789	0.79919	0.98076

Table 4 shows that the values of Motivation and English learning in weighted product method for weighted normalized decision matrix using weighted product method find the pair wise comparison value for Teaching Chinese as A Foreign Language, Tourism Management, Business Administration, Computer Science and Technology, Accounting, International Economics and Trade.

TABLE 4.	Motivation	and English	learning in	weighted	product Preference Score

Preference Score		
Teaching Chinese as A Foreign		
Language	0.94804	
Tourism Management	0.93119	
Business Administration	0.95394	
Computer Science and		
Technology	0.88615	
Accounting	0.95493	
International Economics and		
Trade.	0.68640	

Table 4 shows that from the result it is seen that Accounting= 0.95493 1<sup>st</sup> rank, Business Administration=0.95394 2<sup>nd</sup> rank, Teaching Chinese as A Foreign Language=0.94804 3<sup>rd</sup> rank, Tourism Management= 0.93119 4<sup>th</sup> rank, Computer Science and Technology= 0.88615 5<sup>th</sup> rank, International Economics and Trade= 0.68640 6<sup>th</sup> rank.

TABLE 5. Motivation and English learning in weighted product Rank

Rank		
Teaching Chinese as A Foreign		
Language	3	
Tourism Management	4	
Business Administration	2	
Computer Science and Technology	5	
Accounting	1	
International Economics and Trade.	6	

Table 5. shows that from the result it is seen that Accounting 1st rank, Business Administration 2nd rank, Teaching Chinese as A Foreign Language3rd rank, Tourism Management 4th rank, Computer Science and Technology 5th rank, International Economics and Trade 6th rank. Accounting is highest value for International Economics and Trade is lowest value.

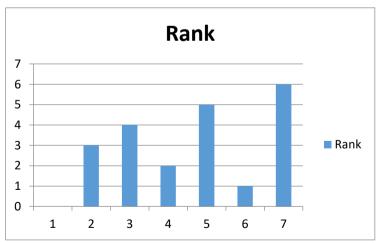


FIGURE 3. Motivation and English learning in weighted product Rank

This figure 2 shows that from the result it is seen that Accounting is highest rank for International Economics and Trade is lowest rank.

#### 6. Conclusion

Motivation is one of the key elements of students' proficiency in English, and it has long been a subject of interest for scholars and foreign language teachers. It is still necessary to research how to increase English learners' motivation in the

Chinese context by understanding the different student motivation styles in the early stages of English learning and the variables affecting their sustained motivation over the course of the lengthy English learning process. This essay aims to investigate the driving forces behind non-Chinese English speakers' desire to study the language. This review examines the most recent findings on the importance of motivation in learning a second or foreign language. The success or failure of any complex task can largely be attributed to motivation. The researcher defines the term "motivation" in this study, discusses the many types of motivation, examines earlier research on the subject of motivation in language acquisition, identifies the circumstances of motivation, and lists the primary determinants of motivation in learning English as a foreign language according to a study literature. The WPM temperature remains constant during the discontinuous separation of the emulsion; however, due to the rapid interaction of the emulsions, lipid droplets appeared to be attached via WPM [24]. Caseins versus WPM in the lipid droplet land because the thermal equilibrium of the emulsion is low, and this study allowed the recovery of excess whey protein concentrations, showing that mixing together heat-stable whey protein-rich emulsions is very feasible. The results show that Accounting has the highest rank, while International Economics and Trade has the lowest rank.

#### Reference

- [1]. Wang, FengXia. "Motivation and English achievement: An exploratory and confirmatory factor analysis of a new measure for Chinese students of English learning." *North American journal of psychology* 10, no. 3 (2008): 633-646.
- [2]. Alizadeh, Mitra. "The impact of motivation on English language learning." *International Journal of Research in English Education* 1, no. 1 (2016): 11-15.
- [3]. Suryasa, Wayan, I. G. P. A. Prayoga, and I. Werdistira. "An analysis of students motivation toward English learning as second language among students in Pritchard English academy (PEACE)." *International journal of social sciences and humanities* 1, no. 2 (2017): 43-50.
- [4]. Long, Chunmei, Zhu Ming, and Liping Chen. "The Study of Student Motivation on English Learning in Junior Middle School--A Case Study of No. 5 Middle School in Gejiu." *English language teaching* 6, no. 9 (2013): 136-145.
- [5]. Ekiz, Seda, and ZahitjanKulmetov. "The factors affecting learners' motivation in English language education." *Journal of foreign language education and technology* 1, no. 1 (2016).
- [6]. Liu, Meihua, and Wenhong Huang. "An exploration of foreign language anxiety and English learning motivation." *Education Research International* 2011 (2011).
- [7]. Menggo, Sebastianus. "English learning motivation and speaking ability." *Journal of Psychology and Instruction* 2, no. 2 (2018): 70-76.
- [8]. Al Othman, Fadel HM, and Khaled M. Shuqair. "The Impact of Motivation on English Language Learning in the Gulf States." *International Journal of Higher Education* 2, no. 4 (2013): 123-130.
- [9]. Li, Peipei, and Guirong Pan. "The Relationship between Motivation and Achievement--A Survey of the Study Motivation of English Majors in Qingdao Agricultural University." English language teaching 2, no. 1 (2009): 123-128.
- [10]. Tsai, Chia-Hui, Ching-Hsue Cheng, Duen-YianYeh, and Shih-Yun Lin. "Can learning motivation predict learning achievement? A case study of a mobile game-based English learning approach." *Education and Information Technologies* 22, no. 5 (2017): 2159-2173.
- [11]. Torres, J., and E. Alieto. "English learning motivation and self-efficacy of Filipino senior high school students." *Asian EFL Journal* 22, no. 1 (2019): 51-72.
- [12]. Torres, J., and E. Alieto. "English learning motivation and self-efficacy of Filipino senior high school students." *Asian EFL Journal* 22, no. 1 (2019): 51-72.
- [13]. Bernaus, Mercè, and Robert C. Gardner. "Teacher motivation strategies, student perceptions, student motivation, and English achievement." *The Modern Language Journal* 92, no. 3 (2008): 387-401.
- [14]. Chew, Phyllis Ghim-Lian. "Change and continuity: English language teaching in Singapore." *The Asian EFL Journal Quarterly June 2005 Volume 7, Issue 1.* 7, no. 1 (2005): 4-24.
- [15]. Fenyvesi, Katalin. "English learning motivation of young learners in Danish primary schools." *Language Teaching Research* 24, no. 5 (2020): 690-713.
- [16]. Sathiyaraj Chinnasamy, M. Ramachandran, Ashwini Murugan, "An extended Step-Wise Weighted Assessment Ratio Analysis for improving criteria prioritization process Using PROMETHEE Method", REST Journal on Emerging trends in Modelling and Manufacturing, 8(4), (2022):1-8
- [17]. Yihong, Gao, Zhao Yuan, Cheng Ying, and Zhou Yan. "Relationship between English learning motivation types and self-identity changes among Chinese students." *Tesol Quarterly* 41, no. 1 (2007): 133-155.
- [18]. Chen, Ching-Huei, Hsiu-Ting Hung, and Hui-Chin Yeh. "Virtual reality in problem-based learning contexts: Effects on the problem-solving performance, vocabulary acquisition and motivation of English language learners." *Journal of Computer Assisted Learning* 37, no. 3 (2021): 851-860.
- [19]. Nafari, Javid, Alireza Arab, and SinaGhaffari. "Through the looking glass: Analysis of factors influencing Iranian student's study abroad motivations and destination choice." *Sage Open* 7, no. 2 (2017): 2158244017716711.
- [20]. Chiang, Yi-Hui. "MCDM modelling on enrolment determinants of English medium instruction offered by native-speaking teachers." *International Journal of Education Economics and Development* 6, no. 3 (2015): 209-219.
- [21]. Aksakal, Erdem, and MetinDağdeviren. "Analyzing reward management framework with multi criteria decision making methods." *Procedia-Social and Behavioral Sciences* 147 (2014): 147-152.

- [22]. Datta, S., G. S. Beriha, B. Patnaik, and S. S. Mahapatra. "Use of compromise ranking method for supervisor selection: A multi-criteria decision making (MCDM) approach." *International Journal of Vocational and Technical Education* 1, no. 1 (2009): 7-13.
- [23]. Zavadskas, EdmundasKazimieras, ZenonasTurskis, and Simona Kildienė. "State of art surveys of overviews on MCDM/MADM methods." *Technological and economic development of economy* 20, no. 1 (2014): 165-179.
- [24]. M. Mamatha, Sathiyaraj Chinnasamy, Ashwini Murugan, "The Development of Terminal Alkynes in Water Using DEMATEL Method", Journal on Materials and its Characterization, 1(1), (2022):17-27
- [25]. Agrawal, Vivek, Rajendra P. Mohanty, and Anand Mohan Agrawal. "Identification and analysis of enablers of SCM by using MCDM approach." *Benchmarking: An International Journal* 27, no. 6 (2020): 1681-1710.
- [26]. Ibrahim, N. K., Hamsa Hammed, A. A. Zaidan, B. B. Zaidan, OsamahShihabAlbahri, M. A. Alsalem, R. T. Mohammed et al. "Multi-criteria evaluation and benchmarking for young learners' English language mobile applications in terms of LSRW skills." *IEEE Access* 7 (2019): 146620-146651.
- [27]. Zhao, Lei. "Investigation into Motivation Types and Influences on Motivation: The Case of Chinese Non-English Majors." *English Language Teaching* 5, no. 3 (2012): 100-122.