



Influence of Low Emotion Filtering and Explicit and Implicit Learning Abilities on Children's Second Language Acquisition in China

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ARTICLE INFO

ABSTRACT

Article History:

Received: 10 December 2020

Received in revised form: 17 March 2021

Accepted: 10 May 2021

DOI: 10.14689/ejer.2021.96.13

Keywords

Low emotion filtering, explicit learning abilities, implicit learning abilities, children's second language acquisition

Purpose Second language acquisition is an essential factor for students to survive in the educational and professional fields. It has gained attention of recent researchers and regulators. The current study aimed to examine the role of low emotion filtering, explicit, and implicit learning abilities on children's second language acquisition in China. **Method** The study utilized the primary data collection techniques and adopted a well-validated questionnaire to gather the data from the selected respondents. PLS-SEM was adopted to explore the association between the constructs. **Findings** The results of the study showed

a positive association between low emotional filtering, explicit learning abilities, and implicit learning abilities and second language acquisition. The results showed that under low emotional filtering, the learners felt more emotional safety. They felt positivity and had the ability to decide accurately and acquire a second language effectively. The results also indicated that when the learners acquired explicit learning abilities, they could learn a second language at any stage of life when needed. **Implications for Research and Practice** This research would be helpful for policymakers while formulating the policies regarding facilitating the children about second language acquisition and guide the relevant authorities regarding the implementation of these policies.

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Introduction

Language is one of the most important features that distinguish human beings from other animals. Humans who have mastered the ability of language have realized the transformation from primitive man to modern man. Language is a communication ability. Language learning is one of the most important steps in the process of understanding and reshaping the world. With the acceleration of globalization, international communication and learning are very important for personal growth (Nergis, 2021). Therefore, mastering one or more foreign languages is very helpful for personal development. The study of second language acquisition not only has an important guiding significance for foreign language acquisition but also plays a certain role in improving students' language acquisition ability. Second language acquisition includes language acquisition theory and practice and is a combination of the two (Van Osch, Hulk, Aalberse, & Sleeman, 2018). Since language acquisition is a continuous process, only through repeated practice and memory can learners truly master the rules. In addition, teachers also need to constantly improve their own ability, expand knowledge, pay more attention to students' personal emotional factors in the process of second language teaching, help them find the right learning methods, and improve the efficiency of language acquisition (Ziegler, Edelsbrunner, & Stern, 2018).

As the main variables influencing the effect of second language acquisition, explicit learning and implicit learning are related to a learner's mother tongue (Wiener, Chan, & Ito, 2020). Explicit learning refers to the knowledge that learners actively learn, mainly including the knowledge acquired by scholars themselves, which can be expressed in their own mother tongue. Knowledge through implicit learning abilities refers to the knowledge that exists subconsciously in the brain, most of which is accumulated from long-term learning and application of the mother tongue. It may not be perceived by itself, but it does exist (Talha, Azeem, Sohail, Javed, & Tariq, 2020). The application process of implicit learning is that learners automatically extract and influence it in their brains (Toomer & Elgort, 2019). The way mostly the teachers apply to teach the students in the classrooms is mainly explicit learning, including words, grammar rules, and pronunciation in the process of second language acquisition in which students are clearly aware of the input process of knowledge (Talha, 2020).

However, implicit learning cannot be obtained from classrooms and generally depends on the influence of long-term living environment and language environment or occasional acquisition (Ullman & Lovelett, 2018). Based on the relationship between explicit and implicit learning and the emotional factors in the process of second language acquisition, the methods of second language acquisition are studied to help students improve their learning efficiency and language ability (Shao, Pekrun, & Nicholson, 2019).

In China, the English language has long been taught and learnt as a second language, considering its need in many national programs and interpersonal communication at international levels (Zhang & Bournot-Trites, 2021). English assessment tests at school and college levels are also compulsory to pass. Over a long period of time, many English language learning programs are being carried out with the aim to instill English learning skills in students, make them master English pronunciation, semantics, syntax, and grammar, and prepare them for fluent English speaking and writing (Kang & Lin, 2019).

Currently, about 191 schools are active in China to teach English as a second language, some of which are reputed for providing significant English learning programs for learners. These institutions include Aston English, Talenty English, EF English First, Wall Street English, Action English, Shane English School, Berlitz, Helen Doron Early English, Yew Chung International School, Shenyang Transformation International School, Eton House, Webi English, New Dynamic Institute, Zhuhai International School, and Gateway Language Schools (Haidar & Fang, 2019). These institutions are providing their services in many regions of the country (Dong, Fan, & Xu, 2021).

The current article aimed at finding ways and means to achieve a high level of accuracy, fluency, and speed in the English language among Chinese English learners. The main aim of this study was therefore to identify the relationship among learning factors like low emotional filtering, explicit learning abilities, and implicit learning abilities in second language acquisition. There is no dearth of studies in the existing literature which deal with the influence of explicit learning abilities and implicit learning abilities on second language acquisition. A lot of studies are also about the impacts of low emotional filtering on second language acquisition. However, no study has so far combined all these factors in single research in order to examine their influence on second language acquisition. The current study therefore filled this literature gap by covering all these factors and studied their relationship. This study is also different from the previous study in the manner that it examined the positive and contributory role of low emotional filtering in second language acquisition, while the previous studies took emotional filtering as a factor that only negatively influenced second language acquisition. This study is also one of the first researches to examine the nexus among these constructs in the context of China.

The current study is based on the theory of effective filtering and the influence of explicit and implicit learning abilities on children's second language acquisition methods. The study proposed a method of combining low emotion filtering with explicit and implicit learning energy. An influence model was established based on the emotional factors in the process of second language acquisition, such as learning summary, self-confidence, and anxiety (Yang & Talha, 2021). The current study analyzed low emotional filtering, explicit learning abilities, and implicit learning abilities in second language acquisition among English learners in China. This work would facilitate greatly in children's second language acquisition and contained a few important references and guidelines for children's second language education.

The present study is structured as follows: the second part presents a review of previous studies on the influences of significant learning factors like low emotional filtering, explicit learning abilities, and implicit learning abilities on second language acquisition. These studies have been utilized to establish appropriate hypotheses of the study. The third part examined the research methodology used in the study, comprising the research design, sampling, instruments and the procedure adopted to acquire and analyze the data. The next sections present results and their discussion in the light of past studies. In the end, there is a conclusion, study implications and limitations faced in this study.

Literature Review

Language is the source of communication in all the fields of life like family, society, and economy. In a country, a specific language is used for social communication and

documentation in different legal or authoritative institutions. This specific language is the national or mother language of the country. Besides the mother language, the individuals may need to acquire a second language or multiple languages. Particularly, in the modern age of globalization, international communication, and global information acquisition, learning of second or multiple languages has become compulsory. The low emotional filtering, explicit learning abilities, and implicit learning abilities and their application at the right time affect the accuracy and speed required for second language acquisition. Different authors in diverse contexts in the existing literature have discussed the relationship of significant learning factors like low emotional filtering, explicit learning abilities, and implicit learning abilities with second language acquisition. Some leading literary arguments are cited below for the development of hypotheses.

Low Emotional Filtering Role in Second Language Acquisition

Emotional filtering is a widely discussed and controversial research theory in the process of language acquisition. According to the research results of many linguists, emotional filtering had a great influence on language learners (Dubiner, 2019). Although there is no clear definition of emotional filtering, it is generally understood as a situation when learners cannot immediately digest and absorb the input knowledge in the process of language acquisition. Such obstacles include various aspects, among which emotional and psychological factors are known as emotional filtering factors (Miller, Fox, Moser, & Godfroid, 2018). The existence of emotional filtering in second language acquisition, language input, input absorption, and transformation of learners are certainly limited. High emotional filtering often has great obstacles for learners, making the comprehensible input of learners unacceptable. In the process of language learning, language input must be understandable since a comprehensible input can promote language acquisition. (Baumeister, Foroni, Conrad, Rumiati, & Winkielman, 2017).

Low emotional filtering does not affect learners' acceptance of knowledge input. In general, in the process of language acquisition, when the lower is the emotional filtering, the higher is the degree of acceptance of comprehensible input, and higher is the learning efficiency. On the contrary, when higher is the emotional filtering, the lower is the learning efficiency of learners (MacIntyre, Gregersen, & Mercer, 2019). Affective filtering is mainly influenced by three factors, viz., learners' learning motivation, self-confidence, and anxiety. Intelligibility input is only a necessary condition for successful information acquisition, but it is not a sufficient condition because the receiver must actively accept the information. In this process, if the learner has low anxiety, strong motivation, or strong self-confidence, which means that his emotional filtering is low, it will help him to obtain more comprehensible input information. Low emotional filtering is a decisive factor for successful language acquisition (Li & Xu, 2019). An emotional filter is like a valve; when it is opened, language input can freely enter the language acquisition device and transform it into the acquired competence of the learner. Based on the discussion, the first hypothesis of the study is stated:

H1: Low emotional filtering has a positive impact on second language acquisition.

Explicit and Implicit Learning Role in Second Language Acquisition

In general, explicit learning is the learning acquired through such language rules that

learners can be aware of and speak about; that is, learners know what they know. For example, learners know the grammatical rules of attributive clauses, the formation of infinitives and so on. Implicit learning is the kind of learning in which the learner does not know what he or she knows. For example, children grasp the characteristics and rules of their mother tongue unconsciously, so their knowledge about their mother tongue is implicit knowledge (Leow, 2019). Most of the research on these two concepts focused on the relationship between the two kinds of knowledge, explicit and implicit, and their roles in second language acquisition (Chen & Talha, 2021). There seems to be a consensus on the relationship between explicit learning abilities and tacit learning abilities and second language acquisition, or their role in second language acquisition. In other words, implicit learning abilities play a core role in the process of automatic extraction and application of knowledge, and it is believed that second language competence mainly depends on implicit learning rather than the explicit (Saito, Sun, & Tierney, 2019). Although explicit learning is not limited by age, the acquisition of explicit knowledge is affected by the age at which learning begins (Sugiura et al., 2018). Specifically, with the increase of age, explicit learning becomes the main method of learning. In addition, it is also found that learning environment has no effect on the learning of explicit knowledge (Nakata & Elgort, 2021). In second language acquisition and other foreign language acquisition environments, there is no obvious difference between explicit learning and abilities required because explicit knowledge itself is not limited by age and certain abilities (Talha, Sohail, & Hajji, 2020). When explicit knowledge is transformed into implicit knowledge, it is conducive to the acquisition of second language learning (Thomas, Bowen, & Rose, 2021). Children will gradually form the fixed mode of thinking and expression habits of the mother tongue in the process of learning the mother tongue. These will become implicit knowledge in the subconscious mind, and no subconscious mind will use implicit learning abilities to evaluate and judge other knowledge in subsequent learning (Yilmaz & Granena, 2019).

Although it is widely accepted that implicit learning abilities play a key role in the development of second language level, the role of explicit knowledge is still very significant in second language acquisition. The reason for this phenomenon is that these studies tended to equate language proficiency with free expression (mainly spoken language, with a small amount of spontaneous writing) but ignored the important dimension of understanding (listening and reading) or tested only spoken language and ignored written language. Up to now, few studies have analyzed explicit and implicit learning from the perspective of different task types and individual differences of language learners (Emerick, 2019). For the second language learners, especially the second language learners and adult language learners, the most important learning abilities which they apply are the explicit learning abilities. Due to a small amount of high quality and enough language input, second language learners lack the opportunity to obtain implicit knowledge from sufficient language input. Adult learners who have a wealth of experience learning a language or other subject are proficient in their mother tongue and can use existing learning strategies to learn a new language, such as consciously ending and using language rules, so they can consciously learn language knowledge. Therefore, their ability to acquire explicit knowledge is much better than that of child learners (Kim & Godfroid, 2019). A study was conducted by Suzuki and DeKeyser (2017) which examined what role explicit and implicit learning abilities played in the natural second language acquisition setting. A research survey was made to 100-second language speakers of Japanese from Japan. These speakers

were examined through tests of automatized explicit and implicit knowledge and implicit learning, tests of phonological short-term memory and aptitude tests for explicit and implicit knowledge. Structural equation modelling technique was applied for analysis. The study implied that explicit learning, in the short term, was more useful in the second language acquisition than implicit learning abilities. Based on the above discussion, the second and the third hypotheses of the study were stated:

H2: Explicit learning abilities have a positive impact on second language acquisition.

H3: Implicit learning abilities have a positive impact on second language acquisition.

Methods

Research design

A descriptive research design was used with a quantitative approach to carry out this study. The study investigated the influence of low emotion filtering and explicit and implicit learning abilities on children's second language acquisition in China. The authors followed the primary data collection techniques and adopted the questionnaires method to gather the data from the selected respondents.

Sample

The respondents of the study were selected using the purposive sampling method from top ten institutions that provided second language learning to students and were ranked as quality institutions. In these institutions, around 6530 students were enrolled from which sample was drawn.

Instrument and procedures

The study used questionnaires to collect data about the constructs and their relationship. A total of 1050 questionnaires were distributed to the sample of the study by making personal visits to schools. After ten days, 757 valid responses were returned and used for analysis. These valid responses represented about 72.09 percent. The content of the questionnaire mainly included two parts. The first part was related to descriptive statistics of the respondents while the second part of the questionnaire tested children's second language acquisition methods designed in this study, which mainly involved children's learning motivation and explicit and implicit learning abilities.

Data analysis

Researchers employed the smart-PLS to explore the association between the constructs under study. The smart-PLS was used because it provided a significant estimation when a complex model and large sample size was used (Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014) as it was the case of the current study. In addition, three predictors were used in this study, viz., low emotion filtering (LEF) with ten items, explicit learning abilities (ELA) with eight items and implicit learning abilities (ILA) with five items. Moreover, the study also used second language acquisition (SLA) as the dependent variable with eight items. Figure 1 shows the variables in the framework.

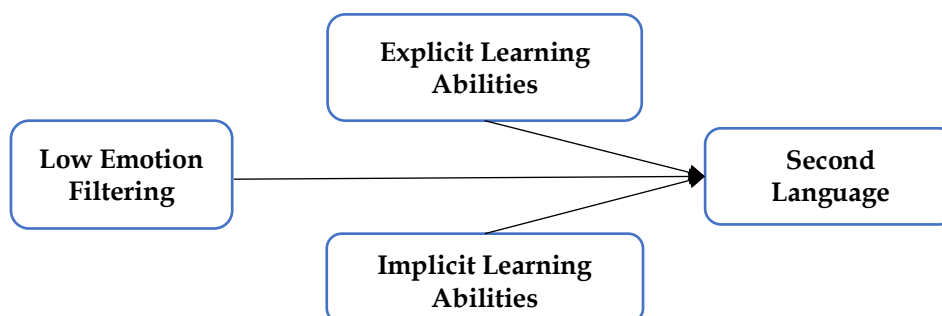


Figure 1. Theoretical Model

Results

Table 1 depicts descriptive statistics showing 67.64 per cent of respondents were male while 32.36 per cent were female. In addition, the figures also highlighted that 14.80 percent of respondents had a tenth standard qualification, 30.78 percent acquired intermediate level of education, 43.46 percent had graduation qualification, and 10.96 per cent of respondents possessed master qualifications. Finally, the figures also indicate that 55.88 percent of respondents had 0 to 2 years of experience, 28.80 percent had 2 to 5 years and 15.32 percent of respondents had more than five years of experience.

Table 1

Descriptive statistics

Gender	Respondents	Percentage
Male	512	67.64%
Female	245	32.36%
Total	757	100.00%
Qualification	Respondents	Percentage
Under 10 th Standard	112	14.80%
Intermediate Level	233	30.78%
Graduation	329	43.46%
Master	83	10.96%
Total	757	100.00%
Experience	Respondents	Percentage
0 to 2 Years	423	55.88%
2 to 5 Years	218	28.80%
Five years and above	116	15.32%
Total	757	100.00%

Table 2 show the items validity obtained through factor loadings. Only the items that had more than 0.50 factor loadings been sued in this study. The item number ELA4, ILA 2, and LEF6 had factor loadings lower than 0.50, so they were eliminated from the study. The remaining items that showed factor loadings of more than 0.50 were included and are presented in the Table 2.

Table 2

Factor Loadings

Constructs	Items	Factor Loadings
Explicit Learning Abilities	ELA1	0.761
	ELA2	0.799
	ELA3	0.798
	ELA5	0.765
	ELA6	0.595
	ELA7	0.758
	ELA8	0.653
	Implicit Learning Abilities	ILA1
ILA3		0.786
ILA4		0.722
ILA5		0.810
Low Emotion Filtering		LEF1
	LEF10	0.764
	LEF2	0.700
	LEF3	0.723
	LEF4	0.710
	LEF5	0.715
	LEF7	0.759
	LEF8	0.780
	LEF9	0.802
Second Language Acquisition	SLA1	0.675
	SLA2	0.794
	SLA3	0.752
	SLA4	0.743
	SLA5	0.721
	SLA6	0.752
	SLA7	0.709
	SLA8	0.739

Table 3 presents the convergent validity of the correlation between items. The current study used average variance extracted (AVE), Alpha and composite reliability (CR) to check the convergent validity. The results exposed that AVE values were higher than 0.50 while CR and Alpha figures were also bigger than 0.70. These findings showed a high correlation among items and valid convergent validity.

Table 3

Convergent Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
ELA	0.857	0.891	0.542
ILA	0.808	0.874	0.634
LEF	0.895	0.915	0.544
SLA	0.879	0.904	0.542

The discriminant validity of the correlation between variables was also measured. The current study used Fornell Larcker to test the discriminant validity. The results exposed that the first value that exposed association with itself was larger than the other values that

showed association with other constructs. These findings showed a low correlation among variables and valid discriminant validity. Table 4 presents the discriminant validity.

Table 4:

Fornell Larcker

	ELA	ILA	LEF	SLA
ELA	0.736			
ILA	0.484	0.796		
LEF	0.630	0.621	0.738	
SLA	0.652	0.639	0.690	0.736

A series of cross-loadings were also used to test the discriminant validity. It was observed that the values that represented relationship of each construct were not smaller than the other values that showed association with other constructs. These findings revealed a low correlation among variables and a valid discriminant validity. Table 5 shows the discriminant validity.

Table 5

Cross-loadings

	ELA	ILA	LEF	SLA
ELA1	0.761	0.344	0.421	0.448
ELA2	0.799	0.404	0.557	0.569
ELA3	0.798	0.384	0.465	0.485
ELA5	0.765	0.368	0.421	0.476
ELA6	0.595	0.289	0.421	0.429
ELA7	0.758	0.328	0.451	0.467
ELA8	0.653	0.361	0.489	0.462
ILA1	0.425	0.861	0.576	0.579
ILA3	0.350	0.786	0.438	0.433
ILA4	0.408	0.722	0.430	0.474
ILA5	0.356	0.810	0.516	0.533
LEF1	0.498	0.558	0.679	0.632
LEF10	0.472	0.530	0.764	0.651
LEF2	0.415	0.374	0.700	0.508
LEF3	0.495	0.368	0.723	0.521
LEF4	0.453	0.365	0.710	0.502
LEF5	0.462	0.393	0.715	0.510
LEF7	0.442	0.521	0.759	0.583
LEF8	0.487	0.452	0.780	0.638
LEF9	0.458	0.507	0.802	0.649
SLA1	0.417	0.478	0.487	0.675
SLA2	0.453	0.454	0.629	0.794
SLA3	0.509	0.475	0.641	0.752
SLA4	0.489	0.465	0.621	0.743
SLA5	0.473	0.482	0.557	0.721
SLA6	0.515	0.453	0.558	0.752
SLA7	0.538	0.482	0.555	0.709
SLA8	0.440	0.482	0.590	0.739

The current study used Heterotrait Monotrait (HTMT) ratio as an alternative measure

to test the discriminant validity. The results showed that values were not larger than 0.90. These findings showed a low correlation among variables and valid discriminant validity. Table 6 and Figure 2 show the discriminant validity resulted from HTMT tests.

Table 6

Heterotrait Monotrait Ratio

	ELA	ILA	LEF	SLA
ELA				
ILA	0.580			
LEF	0.717	0.714		
SLA	0.749	0.754	0.780	

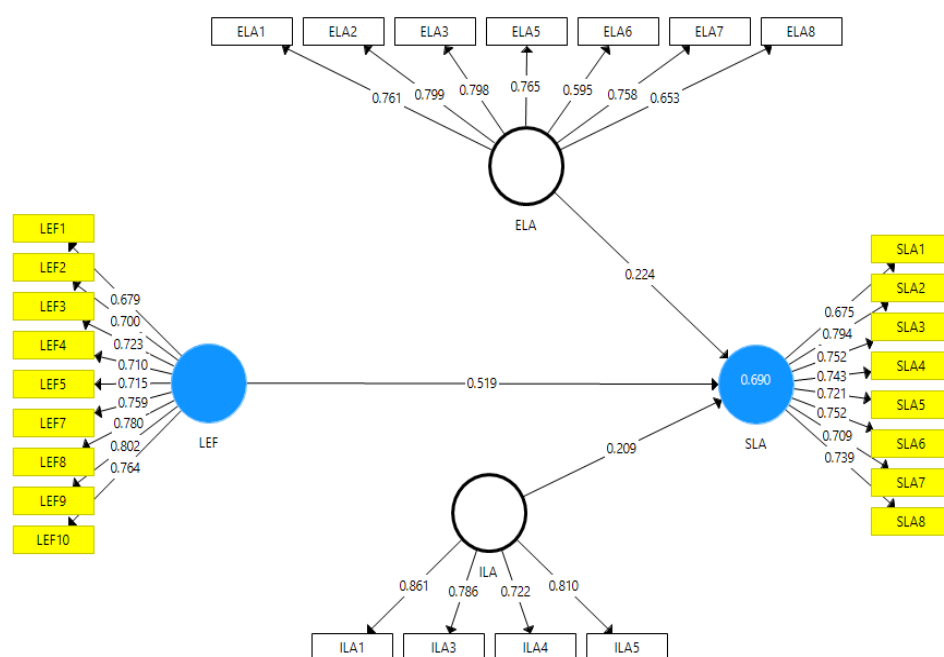


Figure 2. Measurement Model Assessment

Table 7 and Figure 3 exhibit the results of regression analysis which show the low emotion filtering and explicit and implicit learning abilities have positive and significant linkages with children’s second language acquisition in China and thus H1, H2 and H3 are accepted.

Table 7

Regression Analysis

Relationships	Beta	Standard Deviation	T Statistics	P Values	Lower Limits	Upper Limits
ELA -> SLA	0.224	0.031	7.288	0.000	0.165	0.275
ILA -> SLA	0.209	0.030	6.967	0.000	0.150	0.262
LEF -> SLA	0.519	0.029	17.921	0.000	0.473	0.567

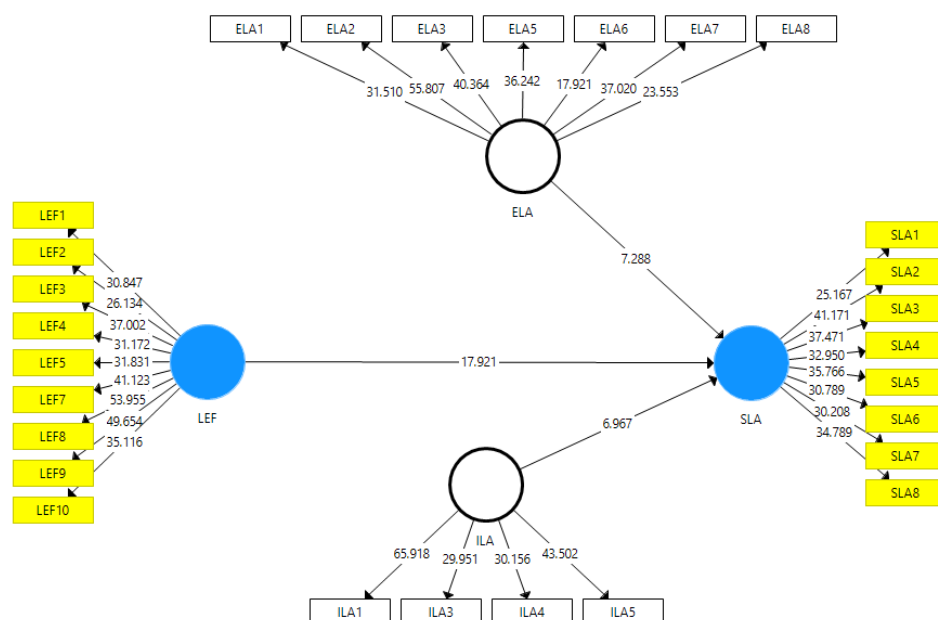


Figure 3. Structural Model Assessment

Discussion

The study findings have revealed that low emotional filtering made a positive impact on second language acquisition. These results are supported by Vuori, Vuori, and Huy (2018), who argued that emotional filter was an emotional or psychological element that hindered the learners' attempts to accept knowledge, information, or novel events. When there is low emotional filtering, the second language input can be easy to understand and digest. Thus, with low emotional filtering, learners can better practice writing and speaking a second language. These results are also supported by a previous study of Gkonou and Miller (2019), which examined that low emotional filtering was composed of low rate anxiety, high learning motivation, and high self-confidence. In case the learners have low emotional filtering, they were more likely to face challenges in the way of learning a second language bravely and absorbing the second language material effectively.

These results are also in line with the past study of Philp, Borowczyk, and Mackey (2017), which revealed that when learners had a low emotional filter, they were emotionally safe. The sense of emotional security lowers negative imaginations and encourage more successful language acquisition. It is like a welcome invitation to a second language invitation.

The study findings indicated that explicit learning abilities had a positive impact on second language acquisition. These results are supported by a previous study of Rothman and Slabakova (2018), in which learners mostly wanted to acquire second language for its social, cultural, political, and economic benefits. In explicit learning, for instance, they had

set the way how to acquire the second language fluently, and to collect the language material from different personal or physical sources which completed step by step guidance. Thus, the explicit learning abilities ensured successful second language acquisition. These results agree with the previous study of Larsen-Freeman (2018), which showed that during the process of acquiring a second language, learners' explicit learning abilities like observation, picking instructions, understanding the contents of language, and practice language contributed to successful second language learning.

The current study findings have also indicated that implicit learning abilities had a positive impact on second language acquisition. These results are supported by a previous study of Hartshorne, Tenenbaum, and Pinker (2018), which examined that in implicit learning, though the learners did not have the intention or consciousness to acquire a second language, they had the inborn learning ability to learn unintentionally from the environment. These implicit learning abilities were useful in second language acquisition, which may be fruitful later on. These results are also supported by the literary work of Ellis (2019), which stated that with the implicit language abilities, individuals can learn second language speaking at any stage of their life without attending particular classes and need not be taught by language experts or interact with any source of the material.

Conclusion

The main aim of this study was to examine the role of low emotional filtering in second language acquisition and to understand the extent to which explicit learning abilities and implicit learning abilities impacted second language acquisition. Quantitative data through questionnaires was collected acquisition from respondents in English language institutions in China about the significant learning factors like low emotional filtering, explicit learning abilities, and implicit learning abilities and their influences on second language. The results of the study showed a positive association between low emotional filtering, explicit learning abilities, and implicit learning abilities and second language acquisition. The results showed that under low emotional filtering, the learners felt more emotional safety. They felt positivity and had the ability to decide accurately and acquire a second language effectively. The results also indicated that when the learners acquired explicit learning abilities, they could learn a second language at any stage of life when needed. The results further revealed that implicit learning abilities, which have not been acquired intentionally but they part of learners' personality, enabled the learners to successfully acquire a second language.

The current study would make both theoretical and practical implications. This study is a detailed description about second language acquisition. The study examined the influences of significant learning factors like low emotional filtering, explicit learning abilities, and implicit learning abilities for second language acquisition. Affective filtering is a complete term in itself, and many authors have discussed it as a negative factor of learning in relation to second language acquisition. However, the current study talked about emotional filtering as a driver of second language acquisition in the context of China, which is one of the first attempts in this domain. In this age of globalization and digital media, when the second language is becoming the need of many individuals and organizations, this research would be helpful for policymakers to formulate policies to

facilitate children's second language acquisition and guide the relevant authorities to practically implement these policies. This study would also offer significant guidelines to learners regarding right methods of second language acquisition. The study taught them that keeping low emotional filtering, developing explicit learning abilities, and encouraging the environment for implicit learning abilities, they could develop second language acquisition.

The study faced a few limitations as well. First, the study focused only on three factors like low emotional filtering, explicit learning abilities, and implicit learning abilities on second language acquisition. Many other factors like culture, environment, institutional role, and age factors all can be influencing factors in the matter of second language acquisition, which could be studied in future studies. Moreover, this study was carried out only in the context of China. So, the data and its analysis showing the nexus among low emotional filtering, explicit learning abilities, and implicit learning abilities and second language acquisition may not be relevant to other regions. Future studies may have a more generalized outlook and focus on other regions across the globe.

References

- Baumeister, J. C., Foroni, F., Conrad, M., Rumiati, R. I., & Winkielman, P. (2017). Embodiment and emotional memory in first vs. second language. *Frontiers in psychology, 8*, 394-421. doi:<https://doi.org/10.3389/fpsyg.2017.00394>
- Chen, J., & Talha, M. (2021). Audit data analysis and application based on correlation analysis algorithm. *Computational and Mathematical Methods in Medicine*, 2021.
- Dong, M., Fan, J., & Xu, J. (2021). Differential washback effects of a high-stakes test on students' English learning process: evidence from a large-scale stratified survey in China. *Asia Pacific Journal of Education, 6*, 1-18. doi:<https://doi.org/10.1080/02188791.2021.1918057>
- Dubiner, D. (2019). Second language learning and teaching: From theory to a practical checklist. *TESOL Journal, 10*(2), 398-419. doi:<https://doi.org/10.1002/tesj.398>
- Ellis, N. C. (2019). Essentials of a theory of language cognition. *The Modern Language Journal, 103*, 39-60. doi:<https://doi.org/10.1111/modl.12532>
- Emerick, M. R. (2019). Explicit teaching and authenticity in L2 listening instruction: University language teachers' beliefs. *System, 80*, 107-119. doi:<https://doi.org/10.1016/j.system.2018.11.004>
- Gkonou, C., & Miller, E. R. (2019). Caring and emotional labour: Language teachers' engagement with anxious learners in private language school classrooms. *Language Teaching Research, 23*(3), 372-387. doi:<https://doi.org/10.1177%2F1362168817728739>
- Haidar, S., & Fang, F. (2019). English language in education and globalization: A comparative analysis of the role of English in Pakistan and China. *Asia Pacific Journal of Education, 39*(2), 165-176. doi:<https://doi.org/10.1080/02188791.2019.1569892>
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review, 26*(2), 106-121.
- Hartshorne, J. K., Tenenbaum, J. B., & Pinker, S. (2018). A critical period for second

- language acquisition: Evidence from 2/3 million English speakers. *Cognition*, 177, 263-277. doi:<https://doi.org/10.1016/j.cognition.2018.04.007>
- Kang, H., & Lin, X. (2019). Lifelong Learning on the Go: English Language Mobile Learning in China. *New Directions for Adult and Continuing Education*, 2019(162), 49-60. doi:<https://doi.org/10.1002/ace.20325>
- Kim, K. M., & Godfroid, A. (2019). Should we listen or read? Modality effects in implicit and explicit knowledge. *The Modern Language Journal*, 103(3), 648-664. doi:<https://doi.org/10.1111/modl.12583>
- Larsen-Freeman, D. (2018). Looking ahead: Future directions in, and future research into, second language acquisition. *Foreign language annals*, 51(1), 55-72. doi:<https://doi.org/10.1111/flan.12314>
- Leow, R. P. (2019). ISLA: How implicit or how explicit should it be? Theoretical, empirical, and pedagogical/curricular issues. *Language Teaching Research*, 23(4), 476-493. doi:<https://doi.org/10.1177%2F1362168818776674>
- Li, C., & Xu, J. (2019). Trait emotional intelligence and classroom emotions: A positive psychology investigation and intervention among Chinese EFL learners. *Frontiers in psychology*, 10, 2453-2464. doi:<https://doi.org/10.3389/fpsyg.2019.02453>
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2019). Setting an agenda for positive psychology in SLA: Theory, practice, and research. *The Modern Language Journal*, 103(1), 262-274. doi:<https://doi.org/10.1111/modl.12544>
- Miller, Z. F., Fox, J. K., Moser, J. S., & Godfroid, A. (2018). Playing with fire: Effects of negative mood induction and working memory on vocabulary acquisition. *Cognition and Emotion*, 32(5), 1105-1113. doi:<https://doi.org/10.1080/02699931.2017.1362374>
- Nakata, T., & Elgort, I. (2021). Effects of spacing on contextual vocabulary learning: Spacing facilitates the acquisition of explicit, but not tacit, vocabulary knowledge. *Second Language Research*, 37(2), 233-260. doi:<https://doi.org/10.1177%2F0267658320927764>
- Nergis, A. (2021). Can explicit instruction of formulaic sequences enhance L2 oral fluency? *Lingua*, 255, 130-146. doi:<https://doi.org/10.1177%2F0267658316675195>
- Philp, J., Borowczyk, M., & Mackey, A. (2017). Exploring the uniqueness of child Second Language Acquisition (SLA): Learning, teaching, assessment, and practice. *Annual Review of Applied Linguistics*, 37, 1-13. doi:<https://doi.org/10.1017/S0267190517000174>
- Rothman, J., & Slabakova, R. (2018). The generative approach to SLA and its place in modern second language studies. *Studies in second language acquisition*, 40(2), 417-442. doi:<https://doi.org/10.1017/S0272263117000134>
- Saito, K., Sun, H., & Tierney, A. (2019). Explicit and implicit aptitude effects on second language speech learning: Scrutinizing segmental and suprasegmental sensitivity and performance via behavioural and neurophysiological measures. *Bilingualism: Language and Cognition*, 22(5), 1123-1140. doi:<https://doi.org/10.1017/S1366728918000895>
- Shao, K., Pekrun, R., & Nicholson, L. J. (2019). Emotions in classroom language learning: What can we learn from achievement emotion research? *System*, 86, 121-147. doi:<https://doi.org/10.1016/j.system.2019.102121>
- Sugiura, L., Hata, M., Matsuba-Kurita, H., Uga, M., Tsuzuki, D., Dan, I., . . . Homae, F.

- (2018). Explicit performance in girls and implicit processing in boys: a simultaneous fNIRS-ERP study on second language syntactic learning in young adolescents. *Frontiers in human neuroscience*, 12, 62-79. doi:<https://doi.org/10.3389/fnhum.2018.00062>
- Suzuki, Y., & DeKeyser, R. (2017). The interface of explicit and implicit knowledge in a second language: Insights from individual differences in cognitive aptitudes. *Language Learning*, 67(4), 747-790. doi:<https://doi.org/10.1111/lang.12241>
- Talha, M. (2020). A history of development in brain chips in present and future. *International Journal of Psychosocial Rehabilitation*, 24(2).
- Talha, M., Azeem, S., Sohail, M., Javed, A., & Tariq, R. (2020). Mediating effects of reflexivity of top management team between team processes and decision performance. *Azerbaijan Journal of Educational Studies*, 690.
- Talha, M., Sohail, M., & Hajji, H. (2020). Analysis of research on amazon AWS cloud computing seller data security. *International Journal of Research in Engineering and Innovation*, 4(3), 131-136.
- Thomas, N., Bowen, N. E. J. A., & Rose, H. (2021). A diachronic analysis of explicit definitions and implicit conceptualizations of language learning strategies. *System*, 103, 126-143. doi:<https://doi.org/10.1016/j.system.2021.102619>
- Toomer, M., & Elgort, I. (2019). The development of implicit and explicit knowledge of collocations: A conceptual replication and extension of Sonbul and Schmitt (2013). *Language Learning*, 69(2), 405-439. doi:<https://doi.org/10.1111/lang.12335>
- Ullman, M. T., & Lovelett, J. T. (2018). Implications of the declarative/procedural model for improving second language learning: The role of memory enhancement techniques. *Second Language Research*, 34(1), 39-65. doi:<https://doi.org/10.1177%2F0267658316675195>
- Van Osch, B., Hulk, A., Aalberse, S., & Sleeman, P. (2018). Implicit and explicit knowledge of a multiple interface phenomenon: Differential task effects in heritage speakers and L2 speakers of Spanish in the Netherlands. *Languages*, 3(3), 25-30. doi:<https://doi.org/10.3390/languages3030025>
- Vuori, N., Vuori, T. O., & Huy, Q. N. (2018). Emotional practices: How masking negative emotions impacts the post-acquisition integration process. *Strategic Management Journal*, 39(3), 859-893. doi:<https://doi.org/10.1002/smj.2729>
- Wiener, S., Chan, M. K., & Ito, K. (2020). Do explicit instruction and high variability phonetic training improve nonnative speakers' Mandarin tone productions? *The Modern Language Journal*, 104(1), 152-168. doi:<https://doi.org/10.1111/modl.12619>
- Yang, Z., & Talha, M. (2021). A Coordinated and Optimized Mechanism of Artificial Intelligence for Student Management by College Counselors Based on Big Data. *Computational and Mathematical Methods in Medicine*, 2021.
- Yilmaz, Y., & Granena, G. (2019). Cognitive individual differences as predictors of improvement and awareness under implicit and explicit feedback conditions. *The Modern Language Journal*, 103(3), 686-702. doi:<https://doi.org/10.1016/j.system.2021.102619>
- Zhang, H., & Bournot-Trites, M. (2021). The long-term washback effects of the National Matriculation English Test on college English learning in China: Tertiary student perspectives. *Studies in Educational Evaluation*, 68, 100-119.

doi:<https://doi.org/10.1016/j.stueduc.2021.100977>

Ziegler, E., Edelsbrunner, P. A., & Stern, E. (2018). The relative merits of explicit and implicit learning of contrasted algebra principles. *Educational Psychology Review*, 30(2), 531-558. doi:<https://doi.org/10.1007/s10648-017-9424-4>