Individual Differences in Second Language Acquisition

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Abstract. There are a vast variety of factors that affect learners' second language acquiring process. Among these variables, individual differences are of great importance. Individual differences consist of age, sex, affection, personality, cognitive styles, learning abilities, learning strategies, learning styles, etc. This paper will give priority to investigate the affect, personality, learning styles and learning strategies of learners during their second language acquiring processes. What is more, this paper is going to research and analyze the deep correlation between individual differences and second language acquisition via using a survey questionnaire as the research methodology. Depending on the research outcome, teaching implications will be presented in order to raise more teachers' awareness of the significance of individual differences in second language acquisition.

1.   Introduction

When talking about the second language acquiring process and learners' performance, inevitably, the individuals' variables should be taken into consideration. As a teacher, it is crucial to gain a deep insight into the differences between top students, average students and low level students as this helps teachers to adjust their teaching plans to meet different students' learning needs. Therefore, this paper gives a great deal of attention to analyze the close relationship between individual differences and second language acquisition from the psychological perspective.

In this research, as one of the objectives, the close relationship between individual differences and second language acquisition will be presented and analyzed. To be more precise, the subjects among 11-30 years old will be researched in this research in order to find out the distinctions in their learning processes. Based on the analysis, the outcome of the research will be discussed. While, another objective of this research is to illustrate the teaching implications and to seek appropriate teaching methodology to cater to different students' needs as much as possible.

This paper falls into six parts. Part 1 gives a brief introduction and the research purpose of this paper; Part 2 presents the theoretical framework of individual differences from affection, personality, learning styles and learning strategies perspectives; Part 3 shows the methodology which is a survey questionnaire used to conduct a research aiming to find out the deep correlation between individual variables and second language acquisition; Part 4 presents the analysis of the research outcome via using data collection method, quantitative study and qualitative study method; Part 5 is the teaching implication, to show the impacts of the research outcome bring on teachers' future teaching; Part 6 is the conclusion part, to summary the whole paper and give the suggestions for teaching.

2.   Theoretical framework of individual differences

In order to research deeply into different students' L2 achievement, the study of individual differences is inevitable. In this part, the core variables like affect, personality, learning styles and learning strategies will be examined as following to discuss why some learners are more successful than others.

2.1   Affect

Affective variables such as motivation and attitude are playing the vital parts in learners' second language acquiring process. Student with high motivation and positive attitude tends to achieve

greater performance in acquiring a second language; however, low motivation and negative attitude may lead learner fail to achieve language proficiency. Different learners' motives vary as they may have diverse learning goals. According to Johnson (2001), integrative and instrumental motivation both exist when people acquiring a second language. If someone is eager to be exposed to a culture, language and people, this can be regarded as integrative motivation; beyond that, if someone learns a language since she/he wants to achieve some goals, like applying for a job, this can be considered as instrumental motivation (p. 129). In terms of the attitudes, they are closely interconnected with motivation. Besides, learners' view towards the target language would affect their language proficiency. For example, if they suppose that acquiring a second language is tedious or they dislike the target language speaker or teacher, they are more likely to hold negative attitudes towards SLA. By contrast, if learners hold strong desire to be one of the members of the L2-using community, they are prone to have the right and active attitudes to acquire the second language.

2.2   Personality

Personality factors vary from person to person. According to Saville-Troike (2005), personality variables sometimes belong to cognitive style (p.89). Among all variables, anxiety and self-confidence, introversion and extroversion are frequently researched and debated by many linguists. Saville-Troike (2005) believes that anxiety has an adverse effect on learners' second language acquisition, such as grades in a foreign language class. However, if students have strong self-confidence, they are prone to be more risk-taking or adventurous (p. 90). Anxiety and self-confidence are also closely related to motivation. Saville-Troike (2005) supports that if learners have lower anxiety and higher self-confidence, they would gain more momentum to acquire a second language even outside of the classroom setting (p. 90). In addition, different writers hold different views to introversion and extroversion since some stereotypes exist. Saville-Troike (2005) reckons that introverted learners perform better in class, however, extroverted learners talk more (p. 90). According to Brown (1994), teachers prefer extroverted learners to introverted ones since they believe that extroverts are more talkative, outgoing and brilliant (p. 145). In fact, extrovert person may perform in an extroverted manner to protect his or her ego, and introvert person may show great empathy in the inward (p. 146). Although different researchers show different views to introversion and extroversion, it is still difficult to distinguish them clearly.

2.3   Learning styles

In terms of the learning styles, it occurs when cognitive styles and educational context link with each other, sometimes, affective and physiological factors are involved (Brown, 1994, p. 104-105). Students' learning process varies greatly because they prefer different methods, approaches and techniques to process information (Ellis, 2008). Thus, different learning styles can differentiate learners from others, and students' usage of the learning strategies shows their different cognition toward SLA. Accordingly, teachers find it difficult to cater to the diverse preferences of students in class. It is very significant to gain a deep understanding of learning styles in order to reduce teachers' challenges to some extent and facilitate learners' L2 language learning performances.

2.4   Learning strategies

According to Saville-Troike (2005), different L2 learners have different choices of learning strategies, which lead to different learning outcomes. However, whether learners' levels or SLA performances influence learning strategies remains uncertain. Therefore, it is a challenge for teachers to find a suitable learning strategy for all students in the class since not all learning strategies are equally useful. Some strategies are effective, while some are more appropriate in particular contexts (Saville-Troike, 2005, p. 91). Although selections of learning strategies hinge on learners' consciousness, their motivation, cognitive style, personality, specific contexts of use and opportunities for learning should also be considered (Saville-Troike, 2005, p. 91). Beyond that, O' Malley and Chamot (1987) classifies learning strategies into three factors, which are metacognitive strategies, cognitive strategies, and social/affective strategies. Specifically, metacognitive strategies mean to plan and monitor language learning to achieve language proficiency; cognitive strategies take advantage of direct analysis or

synthesis of linguistic material; and social/affective strategies conclude to interact with others (Saville-Troike, 2005, p. 91-92). They are all of great importance in learners' SLA process and should be used in a judicious way.

3. Methodology

3.1 Research questions

Due to this paper aims to conduct a research to find out the deep relationship between individual variables and SLA, the research questions should be showed as following:

(1) In terms of the cause and effect of the motivation, what are learners' attitude towards the second language and what factors would bring an effect on SLA?

(2) What are learners' views on introversion, extroversion and anxiety?

(3) What types of learning styles and learning strategies tend to be used in order to increase students' L2 level?

3.2 Research Methodology

The research methodology used for this study is survey research. And the survey aims to find out how learners from 11-30 years old think about the core variables of individual differences and the correlation between individual differences and second language acquisition.

3.3 Data Collection Instrument

The data of this research are collected by questionnaires. Questionnaires are used to investigate different learners' attitudes and views about individual differences and second language acquisition in this research. They are also well structured and give researcher the best possible information from the subjects (Brace, 2008). And the questionnaire will be designed as a simple form with good structure, easy to understand and fill in. My questionnaire was designed with closed question and open question formats. The closed-ended questions account for most because it is easier both for participants to fill out and researcher to compare each item.

3.4 Participants Information

The total number of participants in the questionnaires is 97, ranging from 11-30 years old. There are students who are middle school students aged from 11 to 15, high school students aged from 16 to 19, college students aged from 20 to 23, and university graduates who are aged from 24 to 30. What is more, some university graduates are working in companies, and some are working at school. Subjects who range from 20 to 30 years old are from different majors, such as language-related majors: English literature, English translation, Russian, Chinese literature, Chinese ethnic language and literature; some business-related majors: finance, economics, mathematics, law, city planning, statistics, information and computer sciences; and education.

In this research, they are required to finish the questionnaires according to their own attitudes and second language learning experience.

3.5 Data Collection Procedure

The way to collect data referring to the process of how the research was conducted plays an important part in the research since it is a procedure to collect useful information for the researcher. The questionnaire is designed to be an online questionnaire, which is convenient for the researcher to distribute to different participants. The questionnaires were sent out to 97 subjects with their permission. And the researcher will compute and analyze the responses when the questionnaires are filled.

3.6 Data Analysis Procedure

The data were analyzed by both quantitative study and qualitative study according to the main research purpose: the close relationship between individual differences and second language

acquisition. The questionnaire contains 18 questions which are 17 closed questions and 1 open-ended question. Closed questions only included multiple-choice questions. They were used for quantitative study method to investigate so as to generalize the outcome from the data. And questions were categorized to make it easier for researcher to compare the data. The open-ended question is asking about the learners' feeling toward learning English. The reason for adopting the qualitative study method is that it is a great way to obtain the subject's ideas from the open-ended questions.

4.   Results and Discussion

4.1   Presentation of the descriptive data

This part intends to present the descriptive statistics. The total number of respondents in this questionnaire is 97. These 97 learners have different knowledge backgrounds, age, personalities, learning experience, learning attitudes and strategies, which make the data variable. The age ranges of the participants in the sample are 11-15 (43.3%), 16-19 (29.9%), 20-23 (17.53%), and 24-30 (9.28%). Participants' majors are also varied, with 33% English-related majors, 48% business-related majors and 18% education-related majors. In terms of the level of second language, 49.48% of subjects are at the middle level. However, no one has reached native-like second language proficiency. Accordingly, as for the participants' expectations toward the second language proficiency, 42.27% of participants hope to achieve the high-level language proficiency, while only 7.22% of subjects desire to reach the professional level. Surprisingly, the portions of participants who want to reach the middle level and native-like level are 23.71% and 26.8% respectively.

4.2   Analysis and discussion of the outcome of the research

This part will present the data which were gathered from different L2 learners in order to answer the research questions, followed by the discussion.

The first research question is what different learners' attitudes and the factors are bringing effect on SLA in terms of the motivation. Tables and pie chart are shown as below.

Table 1 Time spent on English of people from different ages

Different Ages	Within 7 hours	8-14 hours	15-21 hours	Above 21 hours
11-15	60%	21%	14%	5%
16-19	72%	24%	3%	0
20-23	88%	12%	0	0
24-30	100%	0	0	0

It can be clearly seen from the table that most learners spend less than 7 hours in learning L2. As the age growing, the figures for within 7 hours increase from 60% to 100%. However, the time range that 8-14 hours, 15-21 hours and above 21 hours decline dramatically with the age growing. Specially, the L2 learners aged 24-30, no one spent more than 7 hours a week to learn English.

Table 2 Time spent on English of learners from different majors

Different majors	Within 7 hours	8-14 hours	15-21 hours	Above 21 hours
Secondary school	47%	21%	8%	5%
High school	50%	8%	4%	0
Language-related majors	91%	9%	0	0
Business-related majors	88%	13%	0	0
Education	100%	0	0	0

It is obvious that learners from secondary school are distributed in different learning time periods. However, from high school students to learners majored in education, the time spent during the period of 8-14 hours, 15-21 hours and above hours are showing downtrends. Surprisingly, the proportion of participants majored in business-related majors (13%) are higher than subjects whose majors is language (9%).

Table 3 Time spent on English of learners with different learning reasons

Different learning reasons	Within 7 hours	8-14 hours	15-21 hours	Above 21 hours
Compulsory course or major	79%	89%	57%	100%
Certificate	49%	50%	43%	0
Study overseas	23%	17%	14%	0
Be interested in its culture	24%	50%	57%	50%
Search for a job	46%	56%	43%	50%

The table shows that if the participants acquire a second language because it is their compulsory course or major, they spent more time on L2 learning. Besides, if participants intend to prepare for the future job or deep into the culture behind the language, they are willing to invest their time on learning English. Although participants who desire to gain certificates and opportunities to study abroad are unwilling to devote more than 21 hours, the number of subjects eager to obtain certificates still exceeded those who wanted to study abroad.

Table 4 Different learning reasons of different ages

Different learning reasons	11-15	16-19	20-23	24-30
Compulsory course or major	74%	93%	76%	35%
Certificate	33%	45%	94%	18%
Study overseas	24%	24%	12%	6%
Be interested in its culture	38%	28%	12%	12%
Search for a job	60%	38%	53%	6%

The table depicts that the vast majority of students aged 11-15 (74%), 16-19 (93%), and 20-23 (76%) who learn English because it is their compulsory course or major. As for certificate, 94% of participants aged 20-23 long for certificates because almost all of them are undergraduates. Statistics on studying overseas and interests in its culture show that they are on downtrend. It is surprising that most students from 11 to 23 years old learn L2 because of landing a job, with 60%, 38%, and 53% respectively, while there are only 6% learners who are among 24-30 years old intend to learn L2 to find a job.
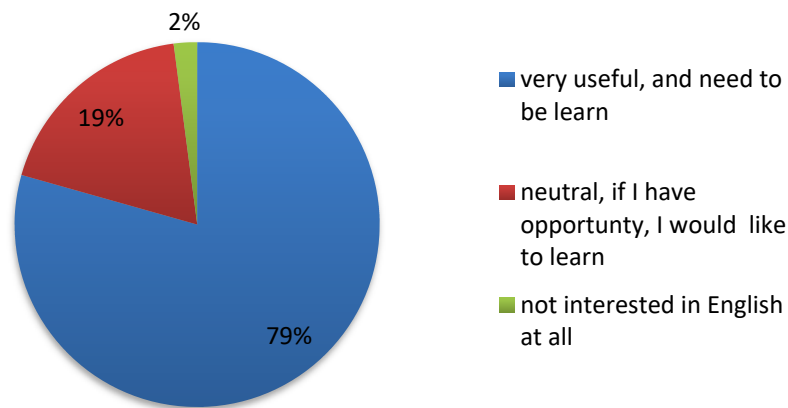

Fig. 1 Different learners' attitudes toward SLA

The Fig. 1 reveals that 79% of the participants view English as a useful tool and necessary to learn, while only 2% of the subjects are not interested in English.

Table 5 What are the external factors that affect your SLA

Learning environment	71.13%
The way of teaching	49.48%
No language learning atmosphere	48.45%
Fail to take enough time to learn English	40.21%

Table 6 What are the reasons of low-level English proficiency

No talent	20.62%
Have no interested in	65.98%
Make no effort to learn	60.82%
Lose confidence because of poor grades or others' mock and criticism	31.96%
Fail to adapt to teaching methods	26.8%
Incorrect learning methods and strategies	61.86%

Table 5 reveals that 71.13% of the learners care about learning environment, followed by 49.48% and 48.45% of the learners suppose that incorrect teaching methods and lack of language learning atmosphere bring an adverse effect on their learning outcomes. In addition, only 40.21% subjects complain about there is not enough time for them to learn L2. In table 6, from learners' perspectives, 65.98% of the participants reckon that the reason of poor language proficiency is lacking of interest in SLA, followed by 60.82% and 61.86% of subjects consider that most learners have incorrect learning methods and strategies, and they are unwilling to make effort to acquire second language. Nonetheless, there is only 20.62% of the participants hold the view that they lack talent.

To conclude, it is not difficult to see that learners aged 11-15 can spend more time learning English, followed by 16-19 years old. However, as the age growing, learners' learning time is decreasing. Besides, it is clear that participants' willing to take more than 8 hours to acquire a second language also depend on their own motivation to L2. Beyond that, participants aged 20-23 year olds are willing to devote more time to get a certificate may be because students in these age are undergraduates, they need more certificates to prepare for their career in the future. What is more, participants are more concerned with the learning environment which would affect their study efficiency and resolution to some extent. Accordingly, most participants believe that the main reason why learners fail to gain good language proficiency is that they lack motivation to learn. There are variable factors affect motivation, and most learners support that interest, effort and learning methods and strategies are of great importance.

The second research question is about learners' views on introversion, extroversion and anxiety.

Table 7 Different ages' views about the effect of introversion and extroversion on learning outcomes

	11-15	16-19	20-23	24-30
Introversion (negative)	43%	76%	71%	56%
Introversion (positive)	57%	24%	29%	44%
Extroversion (negative)	10%	7%	0	0
Extroversion (positive)	90%	93%	100%	100%

From this table, it can be seen that, most participants support that introversion and extroversion can bring negative and positive effect on learning outcomes respectively. To be more precise, except for 11-15 years old, they consider introversion has a positive effect on learners, others like 16-19, 20-23, and 24-30 hold the opposite attitudes. As to the extroversion, there are 90%, 94%, and 100% of subjects aged 11-30 support that extroversion brings a positive impact on learning outcomes. On the contrary, there are only 10% of 11-15 years old participants and 7% of 16-19 years old participants consider that extroversion bring good effect on learning outcomes.

Table 8 The factors that causing anxiety

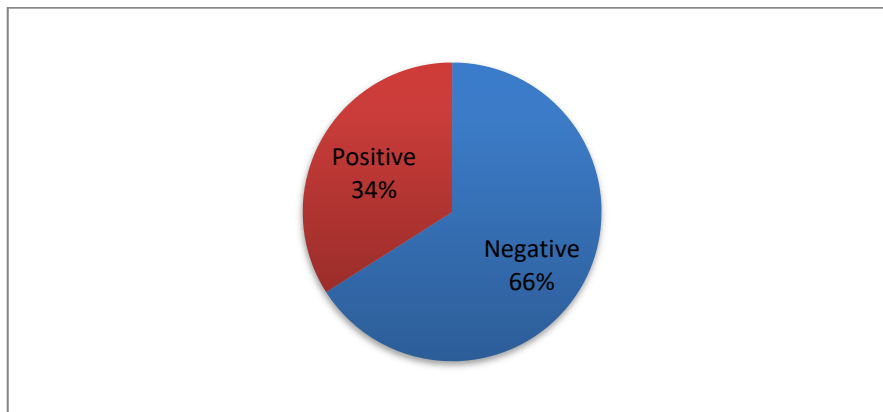| The factors of causing anxiety	Proportion
Unable to recite vocabulary	73%
Unable to memorize grammar rules	56%
Worry about the grade	46%
Have problems with pronunciation	43%
Can't express sentence when speaking and writing	42.27%
Fail to catch the point when listening	42%
Find it difficult to finish the reading task on time because of unfamiliar vocabulary and complex sentence structure	49%

Fig. 2 Different learners' views on whether anxiety brings negative or positive effect on SLA

The figures in the table 8 show that there are 73% of the participants assume that difficulty in memorizing English words cause anxiety easily. According to 55.67% of the participants, learners who are unable to recite grammar rules can also cause anxiety. In contrast, only 42.27% of the participants consider that fail to express sentence when speaking and writing, and not being able to catch the point when listening, would cause anxiety. It is obvious from the Fig.2 that 66% of learners hold the view that anxiety brings negative effect on SLA. However, 34% of learners hold the opposite attitudes.

In summary, it is not surprising to see that the positive impact of extroversion and negative effect of introversion. By contrast, there are some learners supporting that introversion may have a more positive impact on learning outcomes since sometimes introverted person is more detail-oriented and focus more on studying than extroverts. Further, most learners find vocabulary to be a significant obstacle that may cause anxiety, since failure to recite a great number of English words would make them lose confidence. Grammar rules, expression problems, grade, reading and listening problems are also causes of anxiety. As a consequence, it is not surprising that most participants hold the negative attitudes towards anxiety.

The third research question is what types of learning styles and learning strategies learners tend to use in to improve L2 level.

Table 9 The correlation between learning time and effective learning methods

	Within 7 hours	8-14 hours	15-21 hours	Above 21 hours
Read foreign magazines and listen to English news	74%	88%	71%	0
Recite English words and grammar rules via some vocabulary and grammar books	50%	94%	86%	50%
Inspire themselves to learning via attending some exams	34%	66%	43%	100%
Engage in some activities	67%	72%	57%	0
Attend some extra classes	27%	33%	29%	0
Search for some post written by high-level English learners	34%	61%	29%	50%
Meet foreign friends or travel abroad	51%	44%	29%	0

This table shows the language style or strategy that learners choose to spend more or less time studying L2. As for the learners who study less than 7 hours a week, 74% of learners choose to read

foreign magazines and listen to English news to improve their L2 language proficiency. However, only 27% of learners choose to take additional classes. For learners who devote 8-14 hours to acquire L2, 94% of learners tend to use some vocabulary and grammar books to recite some English words and grammar rules. Similar to learners who study within 7 hours, learners in 8-14 hours are also lower with only 33%. Similarly, as to 15-21 hours, most participants are more likely to learn L2 via memorizing words, grammar rules and reading foreign magazines. Last but not least, learners who invest more than 21 hours are prone to take some exams to inspire their learning motivation.

Table 10 The correlation between learning reasons and effective learning methods

	Compulsory course or major	Certificate	Study overseas	Be interested in its culture	Search for a job
Read foreign magazines and listen English news	79%	83%	85%	71%	72%
Recite English words and grammar rules via some vocabulary and grammar books	64%	61%	60%	68%	70%
Inspire themselves to learning via attending some exams	44%	46%	50%	64%	39%
Engage in some activities	68%	72%	65%	75%	65%
Attend some extra classes	26%	28%	35%	32%	33%
Search for some post written by high-level English learners	42%	37%	45%	64%	37%
Meet foreign friends or travel abroad	47%	54%	65%	57%	48%

The purpose of Table 10 is to illustrate what types of effective learning strategies learners with different learning motivations will adopt. No matter what the learning reason is, the majority of learners tend to read foreign magazines and listen to news to improve their L2 level by 79%, 83%, 85%, 71%, and 72% respectively. By contrast, attending extra classes become the last choice, with 26%, 28%, 35%, 32%, and 33% respectively.

Table 11 How different learners are exposed to a second language

How different learners are exposed to a second language	Proportion
Classroom	89%
Extra classes	14%
TV series/films/drama	68%
English songs/ English news	69%
Read English version books	23%
Engage in activities	9%
Chat with native speakers	5%

As seen in the Table 11, 89% learners are exposed to L2 in class, followed by 69% and 68% who choose to watch TV series, films or drama and listen to English songs or news outside class. On the contrary, only 5% of learners prefer to chat with native speakers to increase their L2 proficiency.

Table 12 which one does participants considered being the important thing to master when they acquire second language

Which one does participants considered being the important thing to master when they acquire second language	Proportion
Speaking	60%
Writing	0
Grammar and authentic vocabulary	7%
Exam-oriented techniques	6%
Culture and think pattern behind the language	27%

It can be seen from the Table 12 that 60% of participants believe that speaking is a significant skill for second language learners to master. Beyond that, 26.8% of learners think it is also important to fully understand different cultures and thinking patterns. Surprisingly, no one reckons that writing skill must be grasped in the learning process.

In the data presented above, participants are more likely to read some foreign magazines, expand their knowledge, and master some authentic words and collocation. Besides, it is also popular for learners to memorize some English words and grammar rules by reading some books and taking some exams to gain certificates. Sometimes, engaging some activities such as English corner, debates, or competition are considered helping a lot to increase L2 proficiency. Interestingly, in addition to learning in class, most learners tend to acquire L2 through watching TV series, films or drama, and listening to English songs and news to increase input. Surprisingly, most of the participants believe that speaking and gain an insight into the culture and thinking pattern is of great importance. However, all participants ignore the significance of writing skills.

5.   Reflection

Individual differences are very complex, which are of a great number of variables. Therefore, it is quite important for teachers to notice the source of the problem from the perspective of psychology and take variables into account to improve students' motivation for learning a second language. Actually, affect, personality, learning styles and learning strategies are closely linked. Teachers need to strive to identify different learners' learning preference and attitudes towards SLA to help them become more effective and motivated learners. Further, teachers should be fully aware of the learning objectives of different learners, whether they intend to obtain a paper qualification or high grades, or just acquire a second language. For some students with poor academic performance, teachers should find suitable ways to cultivate their acquired competence according to their learning situation. To have learners get into SLA, teachers can modify their teaching method, that is, they can integrate some interesting activities into teaching to active the learning atmosphere, or recommend students to try some entertaining styles to learn English.

6.   Conclusion

Individual differences have mushroomed nowadays, making researchers and teachers fully realize the close relationship between individual differences and second language acquisition. It is also important for them to be conscious of the various models of learning style and strategy, diverse motivations and personalities, thus having a positive impact on both students and teachers.

However, there are still many limitations which need further study and in-depth discussion. In this study, although participants are variable, they are not evenly distributed. The number of secondary and high school subjects accounts for a large proportion. Therefore, the result of the research cannot stand for all learners aged 20-30, and it is necessity to conduct further research and collect more variable data.

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