

The Influence of Immersion Education in China on Students' English Learning Motivation

Wan Qin, University of Aberdeen, United Kingdom

The Asian Conference on Education & International Development 2021
Official Conference Proceedings

Abstract

This study investigated the motivation of English learning among 40 high school students in Huaibei City, Anhui Province, China. Half of the 40 students received traditional English education and the other half received immersion education. The study compared the learning motivations of the two groups and analyzed the differences between the two sets of data. In addition, the research discussed the participants' attitudes and opinions on the two teaching methods, and what differences between the two teaching methods they think. The study collected the data needed for quantitative analysis through questionnaires, and obtained the data needed for qualitative analysis through interviews. The data of questionnaires would be analyzed by SPSS, while the data of interviews would identify the key paragraphs or sentences through transcription. The data analysis showed that there was no significant difference in the motivation of students under immersion education and traditional education, but the results of the interviews showed that students who received immersion education were more likely to have an interest in English learning, resulting in stronger internal motivation. The main reason for this situation is that immersion education has distinct selection criteria in terms of teachers, teaching activities and teaching materials, and these changes may have some positive effects on learners. The self-satisfaction and sense of accomplishment that learners gain in this process may provide continuous motivation for the next learning task.

Keywords: Immersion Education, Motivation, ESL

iafor

The International Academic Forum

www.iafor.org

Introduction

In China, traditional English education has obvious drawbacks. The most obvious flaw is the excessive attention to student reading and listening. It means learners pay more attention to the English content that can be reflected in the test, thus ignoring the practical application of English. For ensuring that their children could alleviate this problem and improve the quality of teaching while learning English, the group with power and wealth in the society had invested more funds and resources in English teaching, thus giving birth to bilingual education courses in China, especially the most rapidly developed immersion course in recent years (Xiong & Feng, 2018).

Immersion education is a classic model in bilingual education and has been continuously developed and improved worldwide for many years. Nowadays, the status of immersion education in China is gradually rising, and more and more provinces are beginning to introduce immersion courses. Basically, every major city in China has a school that uses immersion courses (Feng, 2007; Hu, 2007; Cheng, 2012; Qiang & Siegel, 2012).

The motivation of students is an important factor of immersion education. It mainly refers to why humans think and behave as they do (Dörnyei & Skehan, 2003, p. 614). Motivation may become the reason that people decide to do something, affecting the time when people maintain an activity or the difficulty of choosing an activity. After years of development in motivation, researchers have gradually proposed some motivation models that can classify learners' language learning motivation. There are three classic models, namely self-determination theory, action control theory and Gardner's Model. Self-determination theory is the target model of this study.

Self-determination theory (SDT) is a classic model of motivation. It is an empirical theory of human behavior and development, and its core is the social contextual factors that support or hinder personal development (Ryan & Deci, 2017). SDT may mean a theory related to human personality and motivation, including the talent and psychological needs of individuals.

SDT primarily includes intrinsic motivation and extrinsic motivation and is related to the degree of self-determination of learners' actions (Ryan & Deci, 2002). Intrinsic motivation is defined as the willingness of learners to participate in tasks for their own benefit, and this willingness is usually enjoyed by learners and can be guided by interest and positive emotions (Oga-Baldwin, Nakata, Parker & Ryan, 2017). For L2 learners, the language learning process may also be a process of self-growth. When learners find positive influences while learning the language, this may give learners a lifelong interest in language learning (Oga-Baldwin, Nakata, Parker & Ryan, 2017), so attracting learners to the foreign language learning process has always been the goal of most teaching programs (Garton, Copland & Burns, 2011).

In contrast, extrinsic motivation is influenced by external factors. According to the degree of self-determination behavior, extrinsic motivation is mainly divided into four parts, integrated, identified, introjected and external regulation (Tanaka & Kutsuki, 2018). The current relationship between intrinsic motivation and extrinsic motivation and the internalization of motivation are also included in the SDT study. Internalization refers to a process of transforming extrinsic motivation into intrinsic motivation.

The main purpose of this study is to discover the impact of immersion education on student learning motivation and the reasons for these effects based on the differences in learning

motivation between traditional and immersive education. To a certain extent, this study can reveal the influence of immersion education on students' L2 learning motivation and its causes, and based on this result, make suggestions for the next adjustment of immersion education to stimulate students' active learning motivation and improve learning efficiency.

Methodology

There are 3 research questions in this study, which are proposed from both quantitative and qualitative aspects. Quantitative question is based on the background and the questions on the questionnaire. The qualitative questions are formulated through subsequent interviews and their transcripts.

Research Questions

Quantitative research questions:

1. Is there any difference in the motivation of learners' English learning between immersion and traditional education as self-reported by participants on the questionnaire?

Qualitative research questions:

1. What is the reason for the change of English motivation in immersion education? Is this change reflected in intrinsic motivation or extrinsic motivation?
2. Do learners think these changes are positive or negative?

Participants

A total of 40 participants were surveyed and divided into two groups, each with 20 participants. All participants are high school students or have taken the college entrance examination. They are between the ages of 17 and 19 and have more than 10 years of English learning experience. They are familiar with the current English teaching model in China. The difference between the two groups of participants is that the English teaching methods used in their high school English courses. One group of participants received the traditional English education, while the other group received an immersion course. Participants in the interview section selected 4 students who have the highest and lowest motivational characteristics from the two groups in the questionnaire. After obtaining their consent, they conducted a short follow-up interview through WeChat.

Data

Data comes from questionnaire investigations and face-to-face interviews. Specifically, for questionnaires, there are 24 questions in them, of which the first two questions are related to the participants' English learning, and the remaining 22 questions are related to learning motivation. These questions are mainly aimed at the learning motivation of participants when they learn English, and they focus on the self-determination theory (SDT) in the motivation which means intrinsic motivation and extrinsic motivation. Among the questions related to learning motivation, the first five questions are for intrinsic motivation, and the remaining 17 questions come from four different categories, integrated, identified, introjected and external regulation in extrinsic motivation. The scale used in this survey was adapted from the language learning fixed vector table (LLOS) developed by Noels (2000). Participants can specifically indicate their level of recognition of the facts stated in the project when answering the items in

such a questionnaire (Ogden & Lo, 2012). Each question is designed with five answers to choose from, which are strongly agreed, agreed, uncertain, opposed and strongly opposed.

For interviews, they were conducted with four participants, two accepting immersion education and two accepting traditional English education. Each time only one participant was interviewed, the questions asked to each participant were the same. Because the participants' English proficiency could not support their fluent expressions, all questions in the interview process were translated into Mandarin, and participants also answered in Mandarin. Interview questions were sent to the participants' mailboxes in advance, giving participants enough time to think and prepare their views on the issue (Brown, 2014). The entire interview process was recorded with the consent of the participants. The recording was transcribed. Participants received a copy of the transcript and had the right to revise their content.

Results

Quantitative Results

In the quantitative analysis section, all the answers in the questionnaire were divided into 5 levels by Likert scales, each level representing a score, which is very agree -5 points, agree -4 points, not sure -3 points, opposed - 2 points and strongly opposed -1 point. The scores of all questionnaires in research question 1 will be summed in Excel to get the total score of each participant, and these scores would be input into SPSS in different groups to get the relevant data tables.

Question 1: Is there any difference in the motivation of learners' English learning between immersion and traditional education as self-reported by participants on the questionnaire?

Whether the two sets of data obtained by SPSS analysis are normally distributed before analyzing whether the two sets of data in the questionnaire are different. In the analysis of data distribution, the most intuitive way is to display the data of immersion education and traditional education in the form of histograms and boxplots. Histograms can show how often different scores appear in the data and how these scores are distributed. Boxplots can show the median spread and interquartile range of scores, and whether there are outliers in the sample data.

After running boxplots and histograms, the following figures 1, 2, 3, 4 and 5 were obtained. Figure 1 shows the boxplots of the two sets of data, Figures 2 and 3 are the histograms of the two sets of data, and Figures 4 and 5 are the related values.

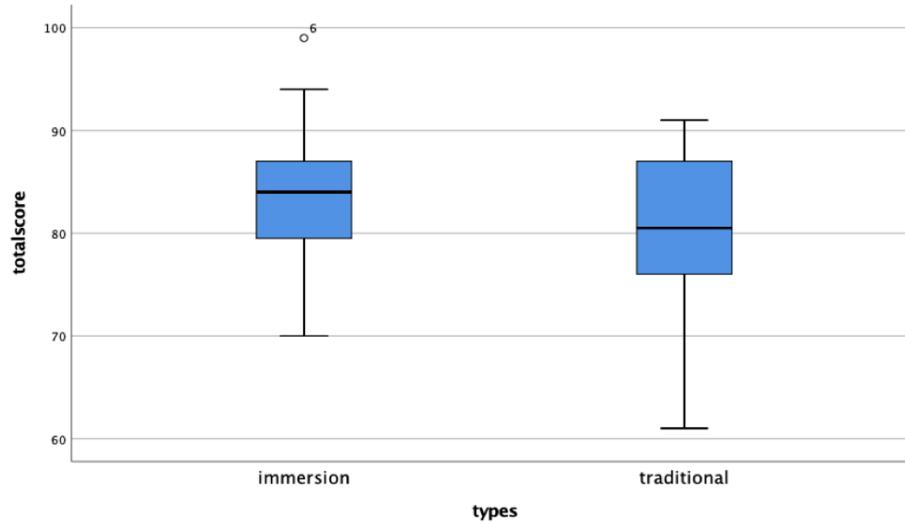


Figure 1: Boxplots

The boxplots show that the data of immersion education has a higher median than the data of traditional education. The median of the immersion group is between 80 and 90, while the median of the traditional group is close to 80. In addition, it can be seen from the figure that outliers exist in the data of the immersion group.

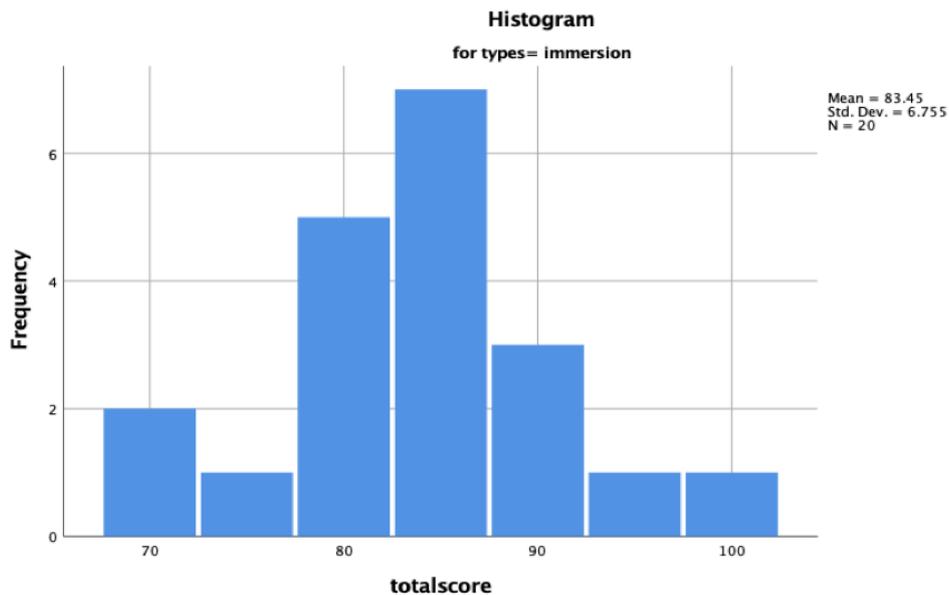


Figure 2: Immersion Histogram

The histogram of the immersion group generally shows a normal distribution, but the vertices of shape are relatively high, indicating that there may be some problems in the data's kurtosis, such as the data between 80 and 90 is too concentrated.

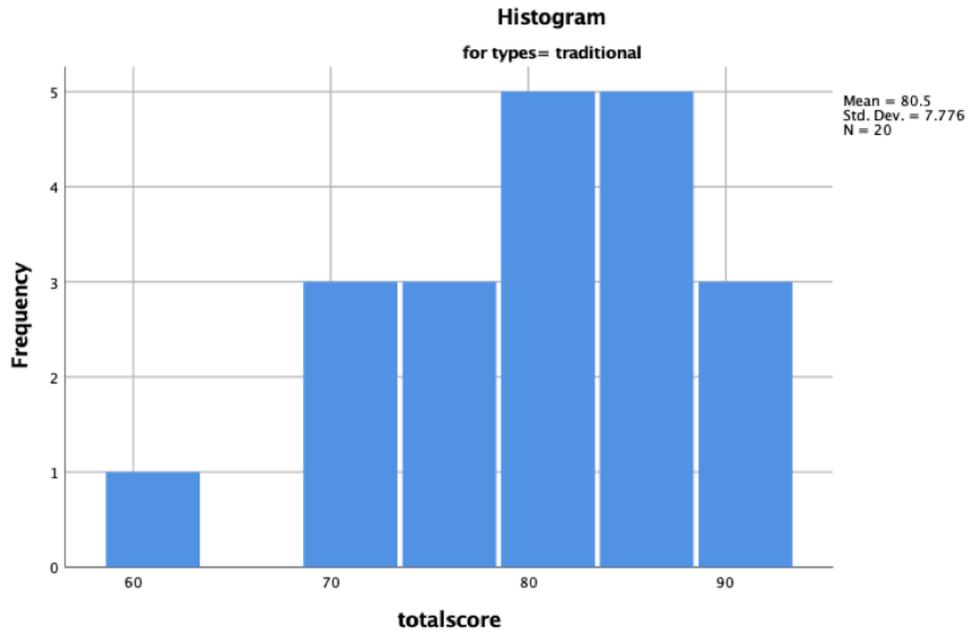


Figure 3: Traditional Histogram

The shape of the traditional group's histogram is not bell-shaped and perfectly symmetrical about its mid-point. It can be clearly seen from the figure that the distribution of the entire shape is biased to the right, indicating that there may be some problems with the skewness of the data. In order to further confirm the situation of these data, it is necessary to analyze the specific values. These values are shown in the table in Figure 3.

Descriptives

types		Statistic	Std. Error	
totalscore	immersion	Mean	83.45	1.510
	95% Confidence Interval for Mean	Lower Bound	80.29	
		Upper Bound	86.61	
	5% Trimmed Mean	83.33		
	Median	84.00		
	Variance	45.629		
	Std. Deviation	6.755		
	Minimum	70		
	Maximum	99		
	Range	29		
	Interquartile Range	8		
	Skewness	.140	.512	
	Kurtosis	.856	.992	
	traditional	Mean	80.50	1.739
95% Confidence Interval for Mean		Lower Bound	76.86	
		Upper Bound	84.14	
5% Trimmed Mean		81.00		
Median		80.50		
Variance		60.474		
Std. Deviation		7.776		
Minimum		61		
Maximum		91		
Range		30		
Interquartile Range		11		
Skewness		-.682	.512	
Kurtosis		.389	.992	

Figure 4: Descriptives

The table in Figure 4 shows that the value of skewness in the immersion group data is 0.140, and the value of kurtosis is 0.856. Both values are between 1 and -1, indicating that the data for the immersion group is a normal distribution. The value of skewness in the traditional group data is -0.682, and the value of kurtosis is 0.389, which is also between 1 and -1, indicating that the data of the traditional group is also normal distribution. Since both sets of data are small samples ($n=20$), the values of skewness and kurtosis can be divided by corresponding standard error to obtain standardize(z) in order to prevent the sample size influence the results. From Figure 6, the standard error (skewness) = 0.512, standard error (kurtosis) = 0.992 of the immersion group can be obtained. After calculation, it can be found that $S/SE(s)=0.273$, $S/SE(k)=0.862$ in the immersion group. In the traditional group, $S/SE(s)=-1.332$, $S/SE(k)=0.392$. The calculated standardize(z) of these data are < 1.96 and > -1.96 , indicating that the data is normally distributed.

types	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
totalscore	immersion	.109	20	.200*	.972	20	.795
	traditional	.119	20	.200*	.945	20	.295

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Figure 5: Tests of Normality

The two sets of data are normal distribution. To further confirm the results, the normality test would be run in the next. Since both sets of data are small samples ($n=20$), it should choose to run Shapiro-Wilk statistics to get the probability (p) values. In Figure 3, it shows the $p(\text{immersion})=0.795$, $p(\text{traditional})=0.295$. Both p values are $>.05$, then the two sets of data can be considered to be normally distributed. This also means that the two sets of data are parametric data, which can be used for the parametric statistical test. Then the next two sets of data will be analyzed using the independent samples t-test.

SPSS performs the LEVENE test of equality of variances before using a t-test to analyze the data. This step is equivalent to ensuring equal variances of the data, or equal standard deviation of data from the mean.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
totalscore	Equal variances assumed	.832	.367	1.281	38	.208	2.950	2.303	-1.713	7.613
	Equal variances not assumed			1.281	37.270	.208	2.950	2.303	-1.716	7.616

Figure 6: Independent Samples Test

Figure 6 is a data table obtained after running the independent samples t-test.

		Independent Sample			
		Levene's Test for Equality of Variances			
		F	Sig.	t	df
totalscore	Equal variances assumed	.832	.367	1.281	38
	Equal variances not assumed			1.281	37.270

Figure 7

In Figure 7, $p = 0.367$. It shows that $p > .05$. This means that the LEVENE test to be non-significant, or variance for two populations cannot be significantly different.

Independent Samples Test							
		t-test for Equality of Means				95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
7	1.281	38	.208	2.950	2.303	-1.713	7.613
	1.281	37.270	.208	2.950	2.303	-1.716	7.616

Figure 8

According to Figure 8, $p=0.208$. It shows $p>.05$. It can be seen from the data that there is no significant difference between the two sets of data, indicating that there is no statistically significant difference in the motivation questionnaire scores for immersion and traditional education. This difference may not occur or only happens occasionally, but it is not known that the effect is strong or weak (Muijs, 2010), and then further calculation of the effect size is required. First $df=38$, according to the formula, $Cohen(d)=0.203$ can be obtained. Comparing d with Cohen's (1988) guidelines, the effect size is small, which means the difference between the two sets of data is slight.

After using SPSS to conduct a series of analyses on the data of the questionnaire survey, it can be found that the impact of immersion education and traditional education on students' English learning motivation is not obvious. Two different ways of education may occasionally give students some changes in motivation, but there is no significant difference.

Qualitative Results

Question 2: What is the reason for the change of English motivation in immersion education? Is this change reflected in intrinsic motivation or extrinsic motivation?

After analyzing the interview content of the participants, it is found that the change of learning motivation mainly comes from three aspects, teachers, teaching activities and teaching materials. The most frequently cited factor in the interview results was the change in the

teacher's occurrence in immersion education. First, teachers who use immersion education generally have higher levels of English than traditional education teachers, because immersion education requires teachers to use English as a medium of instruction. If teachers are not proficient in using English, it is difficult to fulfill this requirement. The impact of this factor was mentioned in the answer of the immersion education respondent S (interview, 2019/07/14).

“The teacher’s English is very fluent. Although I may not understand what the teacher is saying at first, I will have a sense of admiration for the teacher. I will admire her and want to learn from her. And I will force myself to listen to what the teacher is saying, and slowly understand a part.”

Traditional education respondent Q also expressed similar views (interview, 2019/07/20).

"When the teacher speaks English well, I will think that this teacher is very powerful and can certainly teach me. But if the teacher speaks English badly, I will feel that this teacher is not professional at all. I may have learned it wrong. Then I definitely don't want to spend time in her class."

It can be seen from the respondents' answers that the professional level of the teacher has a significant influence on the learner. High-level teachers may stimulate learners to actively learn English, and actively participate in the classroom, while teachers with lower levels may make the learners resent, even give up learning in this language. This factor mainly changes the learner's interest in learning English and attitude towards English, which affects the learner's intrinsic motivation.

Secondly, respondents repeatedly mentioned that the focus of immersion teachers in class is very different from that of traditional teachers. There is such a passage in the answer of the immersion education respondent S (interview, 2019/07/14).

“When I was answered the question in class. The teacher stopped paying attention to whether there was a grammatical error in the sentence I said, or did I answer the correct answer. The teacher began to pay attention to whether I was fluent when answering the question, whether the answer was logical, and occasionally will correct my pronunciation.”

Next is the immersion education respondent J's answer to this section (interview, 2019/07/18).

“The teacher is very interested in the communication between me and my classmates. In the classroom, we often talk to each other. And the teacher sometimes shares the culture and knowledge of some English-speaking countries with us.”

It can be seen from the two parts of the answer that the immersive teacher is more inclined to improve the learner's thinking logic ability and the ability to communicate with others in English. The traditional education respondent F said: “The teacher pays attention to whether the grammar used to answer the questions is accurate, and whether the answers I give are consistent with the textbooks (interview, 2019/07/21).” Traditional English teachers tend to correct the learner's grammatical errors to get the right answer, thus improving the learner's test score. The change of teachers' focus may influence the learner's learning motivation to a certain extent. For example, learners may change their motivation from improving their test scores to

better communicating with others. It may change the learner's extrinsic motivation from external regulation to integrated regulation, increasing the autonomy of learners' motivation to learn.

Finally, respondents mentioned that the difference associated with teachers is that immersive teachers are more inclined to encourage and praise students. The immersion education respondent S mentioned in the answer (interview, 2019/07/14):

“While there are many students in the class who have poor academic performance, the teachers will often praise them, saying that these students have made significant progress and should continue to work hard. Because these students have poor grades, the teachers will encourage them from their attitudes. For example, when they are very serious in their lectures or they are very timely in their homework. Teachers in traditional classes may think this is a normal thing and a task that students should have done.”

This answer shows that immersive teachers and traditional teachers have distinct differences in the way they treat learners. Immersion teachers may use encouragement as one of the most common means of teaching and try to create psychological satisfaction for learners from all aspects. Traditional teachers believe that it is necessary for learners to complete basic tasks and does not need to be praised. Different teaching methods may have different effects on students' learning motivation. Some students may stimulate their interest in learning because they are encouraged. Some students may also study harder to avoid criticism.

The difference in teaching activities is also a part that has been mentioned many times by respondents. Immersion education has different goals when it comes to teaching English. For example, immersion education is more about improving students' ability to apply English. Traditional education focuses on improving students' English test scores. English-related forms of activity will vary. For example, the answer given by immersion education respondent J in answering this part of the question is this (interview, 2019/07/18):

"We often hold English-related activities, such as English Corner, tongue twister or guessing riddle. Last Christmas we also held an English drama contest, and students specially rented costumes to improve the integrity of the show. And that English manuscript has been backed up many times, fearing that it will affect the performance of the show."

These immersive English activities described by respondent J are largely out of the classroom and have nothing to do with textbooks and syllabuses. The main purpose of these activities is to enable students to apply English to the actual scene, thus stimulating students' interest in English learning. The traditional education respondent F mentioned in the answer: “The school occasionally holds some English speech contests or English knowledge contests, and students with good grades will sign up for the competition award (interview, 2019/07/21).” It is obvious that the related activities in traditional English education are more focused on rankings, mainly for students with a better English foundation. These activities with different purposes and their accompanying praise or affirmation may have an impact on the learner's English learning motivation and change the motivation. Immersion education may be more inclined to improve the learner's intrinsic motivation, so that students may be interested in English learning, while traditional education may be more inclined to improve the learner's extrinsic motivation. It means to allow students to obtain higher rankings in the competition to learn English very hard.

In addition to teachers and activities, the textbook is one of the factors that make a difference between the two English teaching models. In the analysis of interview recordings, it can be found that both immersion education and traditional education use English-language textbooks. The difference lies mainly in the setting of textbook content. The immersion education respondent S mentioned in her description of the textbook: "I feel that the subject matter and design activities in the textbook are very similar to those appearing in foreign life, which is quite interesting (interview, 2019/07/14)." Traditional education respondent Q said: "Our teaching materials should be based on the college entrance examination, the words inside are college entrance examination vocabulary, and then the scenes and stories appearing in the book are also written around those vocabulary (interview, 2019) /07/20)." The reason for these two answers may be that many of the immersion education materials are imported directly from abroad and modified for use, so the content of the textbook is closer to the life and mode of the English-speaking countries. Cultural differences may give students a greater interest in this unfamiliar situation, while traditional textbooks serve the exam syllabus. The vocabulary and knowledge that appear in the syllabus must be included in the textbook. It may change the student's extrinsic motivation. Students may change their motivation from they have to learn from the textbooks for understanding the content of the exams to produce the interest for the textbook itself. This is a process of transformation from external regulation to integrated regulation. The three reasons cited by respondents are similar to the literature review of immersion education in this study. These changes in teachers and classrooms may also be said to be a necessary condition for the successful implementation of immersion education.

Question 3: Do learners think these changes are positive or negative?

In the analysis of the interview content, the answers of the two respondents who received the immersion education showed appreciation and approval of this kind of education. When it talks to the three factors related to the motivational change in teachers, teaching activities and teaching materials in immersion education, the evaluations given by respondents all show positive effects.

Respondents S and J mentioned the following paragraphs when answering questions related to immersion teachers.

Respondent S: "I think she (teacher) is very cool when she speaks English, and I want to be like her. I am very active in her class, and I will write English homework firstly. I am also prepared to learn English at home when I am on vacation (interview, 2019/07/14)."

Respondent J: "Although I feel that my English is not very good, but the teacher often praises me in class, for example, I am fluent in answering questions today, and I said an interesting idea. Sometimes I feel that I am still very talented in learning English. I will be particularly enthusiastic and willing to take the time to learn this language (interview, 2019/07/18)."

The influence of immersion teachers on students is mainly to praise students to stimulate students' interest in learning. In the feedback of students, it is found that such a way may make students have stronger motivation to learn English, and students may have a sense of satisfaction when they have been achieved some difficult aims, which can be a driving force for students in the next learning process. In this way, the whole learning process forms a virtuous circle, and students' motivation for English learning will become stronger and stronger.

When talking about issues related to teaching activities and teaching materials, respondents S and J mentioned that "Every time teacher hold an English activity in a class, everyone is very happy. Even if we need to memorize a long English manuscript, we will not feel tired. And every time after the event, everyone has a special sense of accomplishment (interview, 2019/07/14)." and "The activities and teaching materials are different from what I have learned before. Now it is more interesting. Everyone is more motivated and willing to participate and learn this language (interview, 2019/07/18)." These answers all prove that the changes in immersion education in activities and teaching materials are relatively successful, turning the English subject from a boring compulsory course to a more interesting one. Students began to separate English learning from the exam outline and grades, and instead tried to apply it to real-life scenes. These places of immersion education, which are different from traditional education, may improve students' interest in English learning and have a positive impact on students' learning motivation.

Conclusion

In general, immersion education may have a positive impact on the learner's motivation. Especially it may stimulate learners' interest in language learning from several aspects, and let learners actively complete language learning tasks, such as the English drama competition mentioned in the interview. These effects of immersion education may slowly transform the external regulation of the learner's own extrinsic motivation into a more autonomous integrated regulation or even into intrinsic motivation, allowing learners to enjoy the process of language learning from the heart. However, it is also found that the situation of immersion education in China is still not optimistic. On the one hand, because of its high tuition fees makes many families are discouraged, and on the other hand, because the examinations in China's education system still occupy a very important position. The status of immersion education may not significantly improve student test scores. This also shows that immersion education needs a long-term exploration and development process in China, especially how to adapt the immersion curriculum to China's national conditions and adapt to the Chinese examination system. From the current literature, the impact of immersion education on learner motivation is a slow and time-consuming process, so important factors such as the choice of teachers, the age of learners and the location of the course require educators to further research and exploration. From the research results, teachers may try adding some interesting English activities when they are conducting English education or let students simulate some real situations in which English can be used in the classroom, so that students might discover the fun of learning English and increase their autonomy of language learning. In addition, teachers should encourage students in the learning process so that students may feel satisfied and have stronger motivation to learn English.

References

- Brown, J.D. (2014). *Mixed Methods Research for TESOL*. Edinburgh: Edinburgh University Press.
- Cheng, L. 2012. English Immersion Schools in China: Evidence From Students and Teachers. *Journal of Multilingual and Multicultural Development* 33 (4): 379–391. doi:10.1080/01434632.2012.661436
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*, 2nd edition. Hillsdale, NJ: Erlbaum.
- Dörnyei, Z., & Skehan, P. (2003). 18 Individual Differences in Second Language Learning. *The handbook of second language acquisition*, 589.
- Feng, A. 2007. "Introduction." In *Bilingual Education in China: Practices, Policies and Concepts*, edited by A. Feng, 1–10. Clevedon, UK: Multilingual Matters.
- Garton, S., Copland, F., & Burns, A. (2011). Investigating global practices in teaching English to young learners. *ELT Research papers*, 11(1), 1-24.
- Hu, G. 2007. "The Juggernaut of Chinese-English Bilingual Education." In *Bilingual Education in China: Practices, Policies, and Concepts*, edited by A. Feng, 94–126. Clevedon, UK: Multilingual Matters.
- Muijs, D. (2010). *Doing quantitative research in education with SPSS*. Sage.
- Noels, K. A., Pelletier, L. G., Clément, R., & Vallerand, R. J. (2000). Why are you learning a second language? Motivational orientations and self-determination theory. *Language learning*, 50(1), 57-85.
- Oga-Baldwin, W. Q., Nakata, Y., Parker, P., & Ryan, R. M. (2017). Motivating young language learners: A longitudinal model of self-determined motivation in elementary school foreign language classes. *Contemporary Educational Psychology*, 49, 140-150.
- Ogden, J., & Lo, J. (2012). How meaningful are data from Likert scales? An evaluation of how ratings are made and the role of the response shift in the socially disadvantaged. *Journal of health psychology*, 17(3), 350-361.
- Qiang, H., and L. Siegel. 2012. "Introduction of English Immersion in China: A Transplant with Modifications." *International Education* 41 (2): 6–18.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.
- Tanaka, Y., & Kutsuki, A. (2018). Motivation for learning English in the immersion environment of an international school in Japan. *International Journal of Bilingual Education and Bilingualism*, 21(6), 729-743.

Xiong, T., & Feng, A. (2018). Localizing immersion education: A case study of an international bilingual education program in south China. *International Journal of Bilingual Education and Bilingualism*, 1-14.