

Exploring High School Students' Conceptions of Learning English Online in a Less-developed Region in China

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Abstract: The outbreak of Covid-19 pandemic in China has suddenly changed the high school English language teaching and learning in less-developed regions, transforming offline classroom learning into online home-based learning. The changes of learning environments and learning methods brought new challenges to students' English language learning. It's believed that learners' conceptions of learning had influences on their learning process and learning outcomes. In this case, the current research aimed to explore high school students' conceptions of learning English online in the less-developed region through a large-scale questionnaire investigation. The participants were 209 twelfth grade students from Changshun Senior High School of Nationalities in Guizhou province, China. Both quantitative and qualitative data were collected based on the conceptions of learning English online (COLE) questionnaire. First, exploratory factor analysis and Cronbach's alpha test were conducted to examine the validity and reliability of the questionnaire, and further confirmed the factorial structures of high school students' conceptions of learning English online in the less-developed region. Then, students' subjective responses to the open-ended question were coded and analyzed. Four major factors affecting students' conceptions of learning English were identified, namely learning experience, discipline-based learning content, classroom teaching, and school culture. The qualitative results provided positive implications for guiding high school students to establish appropriate conceptions of learning English. It's advised that English instructors should choose suitable teaching materials with appropriate difficulty and interesting content to stimulate students' interest in learning English. Besides, it's very important that English teachers should pay attention to their professional skills training and development and establish appropriate conceptions of learning English first. Finally, a good learning environment with pleasant and atmosphere and rich opportunities to communicate is needed to help guide students' to develop sophisticated conceptions of learning English.

Keywords: Conceptions of learning English, online English language learning, less-developed region

1. Introduction

The rapid development of information and communications technology has brought great changes to the approaches of English teaching and learning. In the field of second language acquisition (SLA), lots of researchers have paid increasing attention to the potential and effectiveness of learning English language in an online or blended environment (e.g., Thang & Bidmeshki, 2010; Thang et al., 2012). However, the English teaching reform from offline to online and related studies were conducted mostly in higher education or secondary education in first-tier cities. For high school English language teaching and learning in less-developed regions, it's still mainly based on face to face classroom teaching, and students nearly had no online learning experience. Unexpectedly, the outbreak of Covid-19 pandemic in China has suddenly changed the condition. Affected by the Covid-19 pandemic, Qiannan Bouyei and Miao Autonomous Prefecture of Guizhou Province adopted online education practice for the first time, transforming offline classroom learning into online home-based learning. In this case, students' learning

environments and learning methods have changed greatly, which brought new challenges to their English language learning.

Conceptions of learning refer to what individuals think learning objectives and process are (Benson & Lor, 1999). In the past few decades, many educators and researchers have been focusing on exploring learners' beliefs or conceptions of learning (Ali et al., 2018; Säljö, 1979; Tsai, 2004; Vezzani et al., 2018), and showed some evidences that learners' conceptions of learning had influences on learning process and learning outcomes (Lee et al., 2008; Peterson et al., 2010; Pinto et al., 2018). Therefore, it's important for researchers to understand learners' conceptions of learning. This research aimed to explore high school students' conceptions of learning English online in the less-developed region through a large-scale questionnaire investigation. By revealing the factorial structures of high school students' conceptions of learning English and major factors affecting learners' conceptions of learning English, the study provided positive implications for guiding high school students to establish appropriate conceptions of learning English online.

2. Literature Review

Conceptions of learning can be regarded as what individuals think learning objectives and learning process are (Benson & Lor, 1999). The earliest research about conceptions of learning can date from Säljö's (1979) study. Säljö interviewed ninety Swedish people with a wide range of educational backgrounds and age about what they actually meant by learning, and distinguished five qualitatively different conceptions of learning: (1) learning as an increase in knowledge, (2) memorizing, (3) an acquisition of facts or principles, (4) an abstraction of meaning, and (5) an interpretive process aimed at understanding reality. Following Säljö, many educators and researchers have been focusing on exploring learners' conceptions of learning in general in the past few decades (Entwistle & Peterson, 2004; Negovan et al., 2015; Vezzani et al., 2018). Liu (2005) identified conceptions of learning as "an epistemological belief system of individual students for knowledge and learning", and further claimed that its formation and development were influenced by factors such as learning experience, discipline-based learning content, classroom teaching, and school culture.

Some researchers contended that the conceptions of learning are domain dependent (Buehl & Alexander, 2001; Hofer, 2000; Tsai, 2004), which means that the same individual may have different conceptions when learn different subjects, such as chemistry and politics (Tsai, 2004). Therefore, various studies investigated learners' conceptions of learning in specific domains, such as science (Tsai, 2004), management (Lin & Tsai, 2008), biology (Chiou et al., 2012; Sadi, & Lee, 2018), and English (Luan & Zheng, 2017; Zheng et al., 2016). Although a variety of studies have been conducted to explore learners' conceptions of learning (Chiu et al., 2016; Lin & Tsai, 2008; Tsai, 2009; Vezzani et al., 2018), limited research has focused on high school students' conceptions of learning English online in a less-developed region.

The current study aimed to explore high school students' conceptions of learning English online in the less-developed region by answering the following two questions:

- What are the factorial structures of high school students' conceptions of learning English?
- What are the major factors affecting high school students' conceptions of learning English?

3. Research Method

3.1 Research Context

The study was conducted in Changshun Senior High School of Nationalities, the only public senior high school in Changshun County, Qiannan Bouyei and Miao Autonomous Prefecture, Guizhou Province. Changshun county was a national-level poverty-stricken county, and now it's a key county in the new stage

of national poverty alleviation development. According to the classification, this school belonged to the third level general high school, which meant that both the teaching resources and the quality of the students are relatively not very good. The school has a population of 4176 students, and over 70% are ethnic minorities. This ethnic senior high school was a boarding school and implemented closed-end management. The school was equipped with only four multimedia classrooms, and students were not allowed to use electronic devices such as mobile phones during school. Restricted by the objective condition, students had fewer opportunities to carry out online learning, and therefore lacked relevant experience in online English language learning.

3.2 Participants

Through random sampling method, 209 twelfth grade students were randomly selected to participate in the survey, including 143 females (68.4%) and 66 males (31.6%). The participants consisted of 90 Bouyei students (43.1%), 60 Miao students (28.7), 57 Han students (27.3%), and 2 Yi students (0.9%). Their ages ranged from 17 to 23 years, with an average of 19.29 years ($SD=0.91$). According to the questionnaire data, 164 students (78.5%) didn't have any online course learning experience before the outbreak of the Covid-19 pandemic, so most of them were unfamiliar with online learning environments and online learning methods. Besides, a total of 180 students (86.1%) were satisfied or very satisfied with their online English course, and only 122 students (58.4%) were satisfied or very satisfied with their online learning performance.

3.3 Instrument

This research employed a questionnaire to explore high school students' conceptions of learning English online in the less-developed region. The questionnaire consisted of two parts. The first part was the conceptions of learning English online (COLE) questionnaire, which adapted from previous questionnaires (Liang & Tsai, 2010; Zheng et al., 2016) and modified according to local students. All the items in the first part were measured with a five-point Likert scale, from 1 "I do not agree at all" to 5 "strongly agree". The second part of the questionnaire was an open-ended question aiming to explore major factors affecting students' conceptions of learning English. Since English is a foreign language for the participants, the whole questionnaire was translated into Chinese.

3.4 Data Collection and Analysis

In the current research, 209 twelfth grade students were randomly selected to respond to the questionnaire voluntarily. After collecting all the effective questionnaires, the study analyzed the data in two steps. First, exploratory factor analysis and Cronbach's alpha test were conducted to examine the validity and reliability of the questionnaire, and further confirmed the factorial structures of high school students' conceptions of learning English online in the less-developed region. Second, the researchers coded all 209 participants' subjective responses to the open-ended question, and further summarized them from different perspectives. To protect participants' privacy, the participants were identified as S001-S209 according to the time the questionnaire was submitted. For instance, the first student to submit the questionnaire was coded as S001, and the last was S209. Since the questionnaire was presented in Chinese, the researcher translated participants' responses into English.

4. Results and Discussions

4.1 Exploratory Factor Analysis of the COLE Questionnaire

At first, the study conducted exploratory factor analysis and Cronbach's alpha test to examine the validity and reliability of the questionnaire. As shown in table 1, the final version of the COLE questionnaire consisted of eight factors and 36 items in total. The eight factors were “Meeting the requirements (MR)” ($\alpha=0.92$, Mean=2.72, S.D.=0.89), “Memorizing (Me)” ($\alpha=0.75$, Mean=3.33, S.D.=0.73), “Testing (Te)” ($\alpha=0.83$, Mean=2.57, S.D.=0.76), “Drills and practice (DP)” ($\alpha=0.76$, Mean=3.62, S.D.=0.54), “Increasing one’s knowledge (IK)” ($\alpha=0.81$, Mean=3.71, S.D.=0.58), “Applying (Ap)” ($\alpha=0.89$, Mean=3.30, S.D.=0.67), “Understanding (Un)” ($\alpha=0.87$, Mean=3.54, S.D.=0.58), and “Seeing in a new way (Se)” ($\alpha=0.92$, Mean=3.83, S.D.=0.60). The total variance explained was 69.94%. The alpha coefficient for each factor of this study ranged from 0.75 to 0.92 (overall $\alpha=0.79$). The above data indicated that the questionnaire has high validity and reliability, and could be used to measure high school students’ conceptions of learning English.

According to the results, most dimensions were consistent with the research findings about the internal structure of students’ conceptions of learning English of previous studies (Luan & Zheng, 2017; Zheng et al., 2016). Compared with the results of Zheng et al. (2016) study, only one dimension was different. This questionnaire removed the dimension “Grammar, vocabulary and pronunciation”, and added the unique dimension “Meeting the requirements”. The study was conducted in a less-developed region, and for participants in this research, English language was quite far from their present lives. Some students didn’t want to learn English at all, but they had to because of the external rules. Students who had the conception of “Meeting the requirements” took a very negative attitude towards English learning, and some of them even gave up learning English. This research results offered English teachers a wake-up call, and provided important implication for English teachers to guide students to establish right conceptions of learning English.

Table 1. *Rotated factor loadings and Cronbach's alpha values for the eight factors of the COLE (n=209)*

	Factor 1: MR	Factor 2: Me	Factor 3: Te	Factor 4: DP	Factor 5: IK	Factor 6: Ap	Factor 7: Un	Factor 8: Se
Factor 1: Meeting the Requirements (MR), $\alpha=0.92$, Mean=2.72, S.D.=0.89								
MR 1	0.85							
MR 2	0.89							
MR 3	0.86							
MR 4	0.82							
Factor 2: Memorizing (Me), $\alpha=0.75$, Mean=3.33, S.D.=0.73								
Me 1		0.70						
Me 2		0.79						
Me 3		0.60						
Factor 3: Testing (Te), $\alpha=0.83$, Mean=2.57, S.D.=0.76								
Te 1			0.86					
Te 2			0.83					
Te 3			0.74					
Te 4			0.49					
Factor 4: Drills and Practice (DP), $\alpha=0.76$, Mean=3.62, S.D.=0.54								
DP 1				0.75				
DP 2				0.62				
DP 3				0.52				
DP 4				0.57				
DP 5				0.66				
Factor 5: Increasing one’s Knowledge (IK), $\alpha=0.81$, Mean=3.71, S.D.=0.58								
IK 1					0.63			
IK 2					0.73			

IK 3	0.56	
IK 4	0.67	
Factor 6: Applying (Ap), $\alpha=0.89$, Mean=3.30, S.D.=0.67		
Ap 1	0.69	
Ap 2	0.81	
Ap 3	0.80	
Ap 4	0.76	
Ap 5	0.68	
Factor 7: Understanding (Un), $\alpha=0.87$, Mean=3.54, S.D.=0.58		
Un 1		0.65
Un 2		0.73
Un 3		0.67
Un 4		0.75
Un 5		0.70
Factor 8: Seeing in a New Way (Se), $\alpha=0.92$, Mean=3.83, S.D.=0.60		
Se 1		0.72
Se 2		0.80
Se 3		0.79
Se 4		0.82
Se 5		0.79
Se 6		0.74

Note: Overall $\alpha=0.79$; total variance explained=69.94%.

4.2 Factors Affecting Learners' Conceptions of Learning English

Qualitative data were collected from the open-ended question in the second part of the questionnaire. According to Liu's studies (2005), the formation and development of students' conceptions of learning was affected by learning experience, discipline-based learning content, classroom teaching, and school culture. In this research, participants' responses were coded from the four dimensions mentioned above, as indicated in Table 2.

Table 2. Factors Affecting High School Students' Conceptions of Learning English

Dimensions	Aspects	Keywords	Frequency
Learning experience	Learning behaviors	Working hard	27
		Developing own learning approaches	6
		Seeking help	3
	English language ability	Getting satisfactory scores	4
		Having a good command of knowledge	18
Discipline-based learning content	Degrees of difficulty	Using English to communicate	11
		Being easy	11
	Features	Being suitable for high school students	2
Classroom Teaching	Teachers' behaviors	Being interesting	3
		Teaching in English	9
	Teaching methods	Interacting with students	8
		Focusing on knowledge	4

		Having diverse activities	6
	Classroom atmosphere	Being fascinating and lively	15
	Learning environment	Communicating in English	12
School Culture		Learning cooperatively	5
		Being pleasant	31
	Learning atmosphere	Being Free	7

4.2.1 Learning Experience

In the learning experience dimension, many students hoped they could keep working hard and doing lots of exercises. For example,

S157: I need to work terribly hard.

S177: I should learn all the time.

S167: I plan to read English words and compositions in the morning and do exercises in the afternoon.

S130: I need to memorize vocabulary and grammar rules every day.

Apart from this, some students expected to develop their own learning approach, and be able to seek help when meet difficulties.

S021: I hope I can have my own way of thinking and learning.

S117: I hope we can discuss with our classmates, and seek help from our teachers when we have difficulties.

In addition, some students described the English language ability they wanted to achieve. A few of students took scores as the criterion of English language ability. Two students had low expectations with the hope of “pass the exams” (S086, S162), and another two students hoped “get high scores in exams” (S084, S098). More students expressed their expectations of having a command of knowledge and being able to communicate in English. For instance,

S010: I hope I can meet the standard of a high school students in listening, speaking, reading and writing.

S085: I hope I can fully understand the meaning of a passage.

S136: I hope I can communicate with others in simple English.

In summary, it’s obvious that students who stressed memorizing words and doing exercises held the conceptions of learning English as “memorizing” or “drills and practices”. Students who took scores as the measurement tented to have the conception of learning English as “testing”, while those highlighted the command of knowledge were likely to consider learning English as “increasing one’s knowledge”. According to previous research (Liu, 2005), students’ conceptions of learning are formed based on their learning experience. The results provided implications that English instructors could guide students to develop their conceptions of learning English through changing students’ learning experience.

4.2.2 Discipline-based learning content

As for the discipline-based learning content, students expected their ideal English language learning to be interesting and informative. For instance,

S043: I hope it should be easy to understand, and accord with students’ learning logic.

S068: I hope learning English can be easy and interesting.

S079: I hope the high school English knowledge can be as simple as what we learnt in elementary school.

In general, students hoped the content could be interesting and relatively easy to understand. As a foreign language, English is far from students' life in the less-developed region. The English language learning environment with limited exposure to English and few opportunities to use English may cause them to feel difficult and bored (Wang, 2016). In this case, it's easy for students to form the conceptions of learning English as "meeting the rules" or "testing". Therefore, it's advised that English instructors should choose suitable teaching materials with appropriate difficulty and interesting content to stimulate students' interest in learning English.

4.2.3 Classroom Teaching

Then, students' expectations for classroom teaching were analyzed. First, students had the same expectations that teachers could teach in English and have more interactions with them. For instance,

S003: I hope my teacher can teach in English with standard pronunciation.

S101: I hope my teacher can show us some English videos in classes, and can fluently communicate with us in native English.

S166: I wish our teachers can interact with us frequently, instead of teaching mechanically.

In terms of teaching methods, however, the students had different expectations. Some hoped the teacher could focus on English knowledge, while others wanted diverse activities.

S120: I hope my teacher pay more attention to let us recite the vocabulary and do English practices, so that we can better understand and analyze sentence components.

S150: I hope we can have English classes in an entertainment way, learning by gaming.

In addition, students also took classroom atmosphere into consideration. As indicated in their answers, they expected a fascinating and lively English classroom atmosphere.

S093: I hope the classroom is harmonious and students are active.

S180: I want an active and lively class.

To sum up, most students hoped a lively English class with diverse activities and more interactions. At the same time, they expected English, rather than Chinese, could become their classroom language. The findings of this research were consistent with Liu's study (2005), who claimed that "teachers' teaching process, methods and language" would influence students' conceptions of learning. The results partly reflected the deficiency of local English education, that is, the lack of excellent English teachers and advanced teaching methods in less-developed regions (Wang, 2016; Zhang & Wang, 2018). Therefore, we suggest English teachers should pay more attention to professional skills training and development. Only when English teachers themselves have right conceptions of English language teaching and learning, can they influence and guide students to establish appropriate conceptions of learning English.

4.2.4 School Culture

Further, school culture was an important factor affecting the formation and development of students' conceptions of learning English. The students wanted a learning environment offering them lots of opportunities to communicate in English.

S001: I hope we have a good English language learning environment, and we all like to communicate in English.

S005: I hope we can communicate with others in English actively, thus making English integrate into our daily lives.

S127: I hope there are some foreign friends around us.

Besides, the students also highlighted the collaborative learning. For example,

S103: I think we should help each other when learning English.

S107: I want to study together with my classmates and teachers.

What's more, the students yearned for a pleasant and free learning atmosphere, as shown in their responses. Many students used "relaxed and pleasant" (e.g., S008, S077, S165), "free and open" (e.g., S002, S171) as the keywords to describe their ideal learning atmosphere.

In a word, students wished to learn and use English with people around them in a pleasant and free atmosphere. Students' conceptions of learning inevitably be influenced by their peers or teachers (Liu, 2005). Thus, a good learning environment offering students opportunities to communicate and learning corporately will be beneficial to help students establish and develop conceptions like "applying".

5. Conclusion

The current research first explored the factorial structures of high school students' conceptions of learning English, and eight categories of conceptions of learning were identified. They are "Meeting the requirements", "Memorizing", "Testing", "Drills and practice", "Increasing one's knowledge", "Applying", "Understanding", and "Seeing in a new way". Qualitative data were further analyzed to explore major factors affecting students' conceptions of learning English. Finally, four factors were identified, including learning experience, discipline-based learning content, classroom teaching, and school culture. The qualitative results provided positive implications for guiding high school students to establish appropriate conceptions of learning English. First, it's possible to guide students to change their conceptions of learning English by changing their learning experience. Second, it's advised that English instructors should choose suitable teaching materials with appropriate difficulty and interesting content to stimulate students' interest in learning English. Besides, it's very important that English teachers should pay attention to their professional skills training and development and establish appropriate conceptions of learning English first. Finally, it's essential to create a good learning environment with pleasant atmosphere and rich opportunities to communicate to help guide students to establish sophisticated conceptions of learning English.

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