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Examining EFL Motivation during Online Learning

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The current study examined the relationship among EFL motivation and multiple variables that purportedly influence it during an online study period. Considerable research attention on motivation has been conducted in face-to-face classroom settings, but less has been done for online contexts. To address this gap, 87 Chinese undergraduate university students completed an online questionnaire measuring 12 variables—L2 motivation, Ideal L2 self, Ought-to L2 self, Promotional instrumentality, Preventative instrumentality, Integrativeness, Attitudes toward learning English, Attitudes toward the L2 community, Attitudes toward online learning, Travel orientation, Ethnocentrism, and Fear of assimilation. The results indicated that participants were moderately motivated to study. Overall, motivation overall was moderately correlated with Integrativeness and Attitudes toward learning English and weakly correlated with Promotional instrumentality, Ideal L2 self, and Attitudes toward the L2 community. For more motivated learners, the results mirrored the overall sample. For less motivated learners, only the Ought-to L2 self moderately correlated with motivation overall, Ethnocentrism, and Fear of assimilation. These findings suggest that more motivated learners are influenced by an ideal image of themselves integrating within the target-language community and studying for instrumental purposes. However, less motivated learners study out of a sense of responsibility to do so.

Keywords: motivation, foreign language learning, online learning

Introduction

Motivation is widely accepted as an influential variable affecting language performance. Language learners with more motivation, which refers to the amount of effort given to learn a language because of the ambition and attitude to do so (Gardner, 1985), are more successful in language performance. Motivation is so important for learning that it may even compensate for individual differences in language aptitude (Gardner & Lambert, 1972; Sternberg, 2002). Therefore, it is essential to gain a better understanding of what variables may affect motivation levels and the degree to which they do so. Though several variables have been identified in the literature (e.g., attitudes toward language learning, attitudes toward the target language community), there has been limited empirical evidence for the strength of these variables on motivation. To address this need, the current study examined the degree to which several variables identified in the literature relate to motivation to learn English.

The study was set in the Chinese university EFL context during an online study period. Language learners across China were required to complete their university courses online for a semester in early 2020. This offered a unique opportunity to examine language-learning motivation in a purely online context when learners had no other option to study. Much of the research into motivation to learn EFL has been conducted in in-person classroom settings, so exploring it in this context would bring insight into whether online learning may affect the relationship among the variables influencing motivation. In this study, four categories of

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variables that reportedly affect L2 motivation were examined: variables associated with Dörnyei's (2005) Second Language Motivational Self System (L2MSS), Gardner's (1985, 2001) orientation towards learning variables, learning context variables, and cultural contact variables. The following sections will provide an overview of these variables.

The L2 Motivational Self System variables

Dörnyei's (2005) L2MSS has three components: the Ideal L2 self, the Ought-to L2 self, and L2 learning experiences. The Ideal L2 self refers to one's specific L2 self-image. It serves as a model for language learners to achieve, narrowing the gap between the actual self and what we would like to become. Dörnyei believes that the Ideal self is the strongest and most influential factor that motivates individuals to become the person they want to be in the future, as well as avoiding becoming someone whom they do not want to be. The Ought-to L2 self refers to the self that one ought to become based on responsibilities, obligations, or duties. As a result, the Ought-to self can help prevent people from becoming someone they do not want to become (avoid negative self-image) by avoiding negative outcomes or results. Both the Ideal self and Ought-to self together can guide people to behave the way they want to and to help avoid unwanted or negative outcomes in learning. They can be viewed as future motivational perspectives as they are more forward-directed and provide motives for people to adjust their current-self based on their imagination. Finally, the L2 learning experience concerns the situation-specific factors that motivate L2 learners, and these factors are related to learners' immediate learning experiences and environment (e.g., teacher's teaching style, curriculum, classroom setting; Dörnyei, 2005). These experiences are directly derived from the L2 learning process and when learners have a positive learning history, they are more motivated to learn (Ushioda, 2001). Recently, Dörnyei (2019) rephrased the definition of L2 learning experience and used the term "engage" to better explain this aspect. Furthermore, this component can be separated into the following 5 measurable aspects, namely school context, syllabus, and the teaching materials, learning tasks, one's peers and teacher.

Orientation towards learning

Gardner (1985, 2001) identified two general orientations for why learners study: for instrumental purposes and for integrative purposes. Learners study for instrumental reasons when they place high value on the external rewards they may receive from doing so. These rewards can be promotive or preventative in nature. Promotional instrumentality refers to studying because of the positive benefits they may receive, such as attaining a good job or access to higher education in the future. Preventative instrumentality refers to studying in order to avoid negative outcomes, like scoring low on high-stakes exams or being scolded by teachers or parents. The other type of general orientation is studying for integrative purposes. This refers to studying because of the desire to be integrated within the target language community. Though presented as independent variables, it is possible for learners to experience all three types. That is, they may study to achieve positive rewards, to avoid negative consequences and because they are interested in joining the target language community.

Learning and context variables

Motivation may also be affected by attitudes toward learning the L2 and the learning context. This includes the attitudes toward learning the target language and the members of the target-language community. When attitudes are more favorable towards these two variables, then motivation also tends to be higher (Taguchi, Magid, & Papi, 2009). The studies that have examined the relationship among these variables and motivation were conducted in the classroom context where teachers and learners had direct, in-person interactions with one another. However, the current study's context is online and the participants engaged in learning

activities with their peers and teachers through the internet. Because the context is quite different, with the interaction among teachers, peers, and learning material being through computer screens, learner attitudes toward online learning may influence motivation to learn. This is yet unclear, so in order to examine it, the current study proposed an additional variable to measure, called Attitude toward online learning. It is defined as the perspectives toward learning the L2 in an online format and its relationship with motivation is expected to be similar to that of other learning context variables. That is, the more positively the participants view online learning the more motivated they will be. This is supported by recent findings by Rojabi (2020), who reported that undergraduate students in Indonesia felt that learning online can enhance their interaction with the instructors and that the use of an online learning platform can optimally support their learning environment. However, despite this benefit, Patricia Aguilera-Hermida, (2020) cautioned that when students are forced to undertake online learning, their motivation may drop drastically, as the technology may not be as accessible for every student and this difference in class interaction would significantly influence their attitudes towards learning online. The participants in the current study were not given a choice to study online, but were required to do so, so it is possible that our participants may be similarly affected.

Cultural contact variables

Learning an additional language can affect linguistic (e.g. vocabulary size) and non-linguistic (e.g., self-identify) outcomes (Gardner, 1985). Learner perceptions of these non-linguistic outcomes may affect how motivated they are to study. Having more trepidation about the effect that language learning may have would harm motivation levels. Three of these variables were examined in the current study: travel orientation (extent to which learners want to travel abroad), fear of assimilation (extent to which learning a language would cause a loss in the L1 culture), and ethnocentrism (internal belief in the superiority of one's own culture; Dörnyei & Taguchi, 2010). If learners have little interest to study abroad, have more fear of assimilation, and are more ethnocentric, then the motivation to learn English would be low.

Motivation levels of L2 learners

Studies examining motivation levels among EFL learners in Asia have reported relatively consistent results. These studies used a quantitative questionnaire with a six-point Likert scale to elicit intended effort to represent motivation. In most learning contexts, students have reported being somewhat motivated to learn (at least 4.0 out of 6.0 scale). For example, Taguchi et al. (2009) reported that adults in China (M = 4.35) and Iran (M = 4.55) were somewhat motivated to learn English as a foreign language. These results are consistent with high school students in Iran (M = 4.50; Papi, 2010) and Pakistan (M = 4.47; Islam et al., 2013). These findings suggest that across Asia, motivation to learn English may be considered somewhat high. However, learners in Japan were reportedly less motivated than students in these other contexts. Taguchi et al. reported that Japanese adults were neutral in their motivation (M = 3.70), a finding that is consistent with Ryan's (2009) results for high school Japanese learners (M = 3.38). One explanation for this may be the degree of interest in the English language, specifically. When learners in Japan are more interested in English, then they are more motivated. This is supported by Ryan's examination of Japanese university students, finding that English majors (M = 4.09) were more motivated than non-English majors (M = 3.15) who were required to take courses regardless of their major of study. Despite this one context of learning, EFL students across Asia, including the context of the current study, China, are motivated to learn English.

Relationships among variables affecting motivation

Empirical research has examined the relationship among variables affecting motivation, and the results have been inconsistent. For example, Csizér and Dörnyei (2005) examined the relationship among variables representing Integrativeness, Instrumentality, Attitudes toward the L2 speakers/community, Culture interest, Vitality of the L2 community, Milieu, and linguistic Self-confidence for 8,000 teenage language learners over a 15-year longitudinal study in Hungary. Questionnaires measuring these variables were given to the participants in fixed intervals to measure changes in their perspectives over time. The results from structural equation modeling showed that Integrativeness had a direct effect on motivation to study and mediated the relationship between motivation and Attitudes toward L2 speakers and Instrumentality, respectively. This means that the strongest variable affecting motivation was the desire to learn it in order to integrate within the target language community. This desire was affected by attitudes toward the L2 speakers of that community and the instrumental value placed on learning the target language. Different results were reported in a later study in the Hungarian EFL context by Csizér and Kormos (2009) when the Ideal L2 self and L2 learning experience were included. They recruited 202 secondary school foreign language learners, 124 college students, and 106 university students. Both college students and university students were non-English majors. Structural equation modeling results showed that Ideal L2 self and L2 learning experience were the strongest predictors of motivation. Ought-to L2 self also had a weak direct effect, but the cultural contact variable (called international posture) and learning context (called parental encouragement) did not have direct effects on motivation. Similar results were reported for Iranian high school students by Papi (2010), who showed that L2 learning experience had a moderate effect on motivation, while Ideal L2 self had a weak-to-moderate effect, Ought-to L2 self and anxiety to learn had very weak positive and negative effects, respectively. These results seem to suggest that learning experience is an important variable for motivation, but a meta-analysis by Al-Hoorie (2018) suggests that this may be due to the overlap in the language on items measuring both variables. Addressing methodological issues, Papi et al. (2018) tested a revised version of the L2MSS that divided Ideal L2 self and Ought-to L2 self into two 'standpoints': from one's own perspective and from the perspective of others. The results for ESL learners in the United States showed that Ought-to self was the strongest predictor of learners' motivational learning behavior, which contrasts with findings in earlier studies showing Ideal L2 self to be the most important.

Expanding the scope of investigation into motivation, Taguchi et al. (2009) examined the relationship among the L2MSS variables, orientation variables, and learning context variables for varied EFL learners in Japan, Iran, and China. Results from structural equation modeling showed a multi-layer relationship among the variables. At the lower layer, Ideal L2 self, Attitudes toward learning English, and Ought-to L2 self had direct effects on motivation. At the higher level, the effects of Attitudes toward the L2 culture and Promotional Instrumentality were mediated by Ideal L2 self, while Family influence and Preventative Instrumentality were mediated by Ought-to L2 self. Of the three variables that had direct effects, Attitudes toward learning English was the strongest predictor of motivation for Japanese and Iranian learners and Ideal L2 self was the strongest for Chinese learners. Similar to Csizér and Kormos (2009), Ought-to L2 self had a weak effect on all three groups of learners. Given the context of the current study, the relationships among the variables for the Chinese learners may inform our results.

Similar findings were reported in the Pakistani EFL context, where Islam, Lamb, and Chambers (2013) examined the effect of variables on motivation. The participants for this study were undergraduate university students from seven public Pakistani universities and aged between 16 and 23. The regression results demonstrated that, like Taguchi et al., Attitude toward learning English had the strongest direct effect on motivation and that Ought-to L2 self

was weakly predictive. However, different from this earlier study, Islam et al. reported that Ideal L2 self weakly predicted motivation. The most striking difference was that the Milieu, International Posture, and Cultural interest variables were also predictive of motivation, though they did so weakly.

Altogether, the results from existing studies suggest that Attitudes toward learning English and Ideal L2 self may have the strongest relationship with motivation and that the Ought-to self may have a weak effect, though this is still unclear. It is also unclear how strongly the other variables, particularly the cultural contact variables, may share a relationship with motivation, but the limited evidence suggests the relationship is weak. Many of the studies also did not include an Integrativeness variable and an Ideal L2 self variable within the same study, despite both having been shown to be important for motivation. One characteristic of these studies is that they have been conducted on learners studying in-person. It is relatively unknown whether the relationships among the variables would be consistent when the learning context was online. As a result, it is necessary to test if the questionnaire items designed more than ten years ago, can still be appliable to this new learning context. To address these gaps in the literature, the study aims to answer the following research questions.

1. How motivated are university English language learners to study online?
2. What is the relationship among the motivation variables and motivation to learn?
3. Do the relationships between each of the 11 dimensions and motivation to learn differ for more and less motivated students?

Methodology

Participants

This study was conducted at a university in southern China. In total, 87 undergraduate students (30 males, 57 females; aged from 18 to 24 years old) who had enrolled in the English language courses the previous semester (conducted online) completed the quantitative questionnaire. The participants were from different faculties across the university (see Table 2 for faculty distribution). At the university, all first-year students are required to take the English language courses, except for students whose English proficiency is high enough to be exempted from the program and students from the Faculty of Law. Utilizing an integrated-skills syllabus, the English program aims to improve first-year students' speaking, listening, writing, and reading skills, using diverse materials, and implementing different academic and discipline-related. Only participants who had taken the English language course online the previous semester could complete this survey.

Table 2: The Faculty distributions of the participants

Participants distributions in Faculties (N=87)	
Faculty of Arts and Humanities	12
Faculty of Business and Administrations	25
Faculty of Education	16
Faculty of Health and Science	4
Faculty of Social Science	18
Faculty of Science and Technology	11

The online learning environment was facilitated with Zoom. At the time of data collection, the university policy prevented any in-person learning to take place. Many of the students

attended class from their homes in mainland China and online classes were led by instructors on the university campus. Each class lasted approximately 90 minutes twice a week. Teachers engaged students in varied interactive activities, utilizing teacher-student question-answer interactions and group work by utilizing the 'breakout room' function on Zoom.

Instrument

To measure the variables in the study, a questionnaire from Dörnyei and Taguchi (2010) was adapted. We chose this questionnaire because the operational definitions of our variables are consistent with our theoretical definitions outlined in the literature review. The instrument has also shown to yield valid and reliable data about motivation and its associated variables, despite it being over 10 years old at the time of data collection. In total, the questionnaire included 36 items, with three items representing each dimension. Participants indicated their response using a six-point Likert scale. The corresponding coding of the Likert scale is shown in Table 3. Part 1 inquired about the level of agreement on statements regarding the following dimensions: (1) Criterion Measure (i.e., motivation), (2) Promotional Instrumentality, (3) Preventative Instrumentality, (4) Fear of Assimilation; (5) Ethnocentrism, (6) Ideal L2 Self; (7) Ought-to L2 Self; (8) Travel Orientation. Part 2 inquired about the frequency of the following dimensions: (1) Attitudes toward L2 learning, (2) Integrativeness, (3) Attitudes toward L2 community, and (4) Attitudes toward online learning. The last variable is a new variable designed to measure participants' attitude and preferences of online learning and face-to-face learning and new items were generated to represent the construct. Part 3 inquired about participants' demographic information, their experiences of learning English, and their English proficiency. The questionnaire was distributed in digital form and was sent to participants through email and online social media platforms.

Table 3: The corresponding coding scale of the questionnaire items' options

Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6
Not at all	Not so much	So-so	A little	Quite a lot	Very much
1	2	3	4	5	6

Data Collection Procedure

After receiving ethical clearance from the university to conduct the study, participants who gave their consent to take part in the online research spent about five minutes to finish the questionnaire. The questionnaire was first distributed to some students representing the intended sample to pilot the quality of the questions. After receiving feedback from the participants, the Chinese translation wording was modified to help participants better understand each item and avoid ambiguity.

Data Analysis

The data from the quantitative questionnaire were first examined for internal consistency reliability. Cronbach's alphas were calculated for the questionnaire overall and each variable was measured on the instrument. Values above 0.70 were considered acceptable. If the items

for each variable were below 0.70, they were inputted into Winsteps to identify careless responses. Careless responses are those that are inconsistent with the other responses that are given on a scale. For example, if a participant indicated 6-6-1 for three items designed to measure the same variable, Winsteps would flag the third response for being inconsistent (i.e., careless). Item responses that were identified as inconsistent were removed from the dataset until the reliability estimate was above 0.70.

Composite variables consisting of the average score of the items for each variable were then created for the variables on the instrument. These included a Criterion Measure variable, an Ideal L2 Self variable, an Ought-to L2 Self variable, an Integrativeness variable, a Promotional instrumentality variable, a Preventative instrumentality variable, an Attitudes toward learning English variable, an Attitudes toward online learning variable, an Attitudes toward L2 community variable, a Fear of assimilation variable, a Travel orientation variable, and an Ethnocentrism variable. Then, descriptive statistics were calculated for the instrument overall and each of the variables. To verify that the data met the assumptions of correlation, the skewness and kurtosis values were inspected. If they were within the absolute value of 2.0, then the variables were approximately normal (Field, 2009). If values fell outside of the approximate value of 2.0, P-P plots were generated to identify univariate outliers. If found, the data point was removed from the dataset.

To answer research question one, the descriptive statistics of the Criterion Measure variable were inspected to reveal participants' motivation levels. To answer research question two, Pearson product-moment correlation coefficients were calculated for the variables on the instrument. To answer research question three, the sample was split into highly and less motivated groups. The cut-score to split the groups was the mean (M = 3.92). Participants scoring above the mean were considered higher motivated and those below the mean were less motivated. The correlation coefficient was again calculated for the two groups to compare the pattern of results between the two groups.

Results and Discussion

The results from the first round of reliability analysis showed that Cronbach's alphas for some scales were below 0.70, indicating they were not internally consistent. To increase the Cronbach alpha values, the dataset was therefore put into the Winsteps to identify and remove unexpected responses. After careless responses were removed, the Cronbach's alphas for the questionnaire overall and each variable except the Ethnocentrism variable were above 0.70, indicating that most of the items were acceptably consistent. In the original questionnaire developed by Dörnyei and Taguchi (2010), the Cronbach's alpha for this scale was 0.35. They argued that it was still acceptable because of its great significance in affecting motivation. Therefore, though the variable had a low Cronbach's alpha in the current study ($\alpha = 0.54$), it is considerably more consistent than the earlier study and therefore was considered acceptable. Results from descriptive statistics of the composite variables show that the skewness and kurtosis values were within the absolute value of 2.0, suggesting that the data set was approximately normally distributed, and thus meeting the assumption underlying correlation. The descriptive statistics and reliability estimates are provided in Table 4.

Table 4. Descriptive statistics and reliability estimate of measures (N=87)

Variables (# items)	M	SD	Min	Max	Skewness	Kurtosis	alpha
All items (36)	3.78	0.47	2	5	0.258	0.511	0.88
Criterion Measure (3)	3.92	0.86	2	6	0.073	0.262	0.72
Fear of Assimilation (3)	2.41	0.93	1	5	0.751	0.195	0.81
Travel Orientation (3)	3.83	1.01	1	6	-0.275	-0.503	0.83

Ideal L2 Self (3)	4.24	0.84	2	6	-0.211	-0.629	0.77
Ought-to L2 Self (3)	3.43	1.03	1	6	0.085	-0.154	0.75
Ethnocentrism (3)	3.15	1.10	1	6	0.121	-0.071	0.54
Promotional instrumentality (3)	4.78	0.88	2	6	-0.748	0.699	0.81
Preventative instrumentality (3)	4.09	1.07	1	6	-0.564	0.086	0.84
Attitudes toward learning English (3)	3.74	1.05	1	6	-0.089	-0.348	0.84
Attitudes toward online learning (3)	3.07	1.17	1	6	0.791	0.512	0.86
Attitudes toward L2 community (3)	4.34	0.94	2	6	-0.295	-0.223	0.81
Integrativeness (3)	4.32	1.08	2	6	-0.412	-0.592	0.76

Overall motivation level

To answer research question one, the descriptive statistics were inspected. The Criterion Measure variable measured the participants' intended efforts of learning English and in this study and represented the overall motivation level of the participants. The mean score for the Criterion Measure variable was 3.92 (*SD* = 0.86), indicating that participants were neutral in their motivation to learn. This means that they were neither motivated, nor unmotivated to study. However, because it approached the 4.0 threshold, these learners may be considered somewhat motivated. These findings are more in line with the motivation levels of learners in Japan, who also reported neutral levels of motivation (Ryan, 2009; Taguchi et al., 2009). It was expected that the Chinese participants in our study would demonstrate levels of motivation similar to those of EFL learners in other contexts throughout Asia who have shown to be somewhat motivated. For example, EFL adult learners in China and Iran reported that they were somewhat motivated (Taguchi et al., 2009). An explanation for these results may be that the context in which the current study was conducted was online and not in-person. It is possible that motivation levels would be more consistent with those of Taguchi et al.'s (2009) Chinese participants had the courses been conducted in-person. However, without a comparison group, this is speculative.

Correlation between Motivation and other variables

Results from bivariate correlations presented in Table 5 show that the Criterion Measure variable significantly correlated with the Integrativeness ($r = 0.34$, $p < .01$), Attitudes toward English ($r = 0.34$, $p < .01$), Attitudes toward L2 community ($r = 0.29$, $p < .01$), Promotional Instrumentality ($r = 0.29$, $p < .01$), and Ideal L2 Self ($r = 0.27$, $p < .05$) variables.

The weak-to-moderate correlation between the Criterion Measure variable and Integrativeness variable indicates that students who have more positive attitudes toward the English-speaking culture and its people would be more likely motivated to learn English. This result aligns with Csizér and Dörnyei (2005), who also showed that Integrativeness shared variance with motivation. They explained that Integrativeness is one specific ideal self-concept in the L2 context and if one's ideal self-image is related to becoming a proficient L2 speaker, this learner is influenced by the integrative disposition. The Ideal L2 Self also shared a weak-to-moderate correlation with motivation, indicating that the motivation of the current study's participants is slightly influenced by their ideal English identity. This result is similar to earlier research showing that Ideal L2 self shares a moderate degree of variance with motivation in the Hungarian (Csizér & Dörnyei, 2009), Iranian (Papi, 2010), Chinese, and Japanese (Taguchi et al., 2009) EFL contexts.

One reason for our results showing a weaker relationship between motivation and Integrativeness and Ideal L2 self, respectively, may be that our students have yet to develop a complete and clear ideal English cultural identity. This would have left their vision of

themselves as English language users and their integrative attitudes toward English to be vague. Thus, these two variables have a relatively minor relationship with their motivation to learn English in the present study.

A somewhat surprising result was that the Ought-to L2 Self was not significantly correlated with motivation level. This may indicate that participants in this study were not motivated by their duties or responsibilities to learn English. Even though Dörnyei emphasized the importance of Ideal L2 Self and Ought-to L2 Self as two significant components of the L2 Motivational Self System, the results of this study do not exhibit a strong relationship between these two aspects and the participants' overall motivation. The results are also unsupported by the existing literature. Though the Ought-to L2 self has shown to have a significant relationship with motivation (Csizér & Dörnyei, 2009; Papi, 2010; Papi et al., 2018; Taguchi et al., 2009), there was no relationship at all in our study.

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Table 5 Correlation Matrix between the motivation variables (*N*=87)

	1	2	3	4	5	6	7	8	9	10	11
1.Criterion Measure	1										
2. Fear of Assimilation	-0.16	1									
3. Travel orientation	0.20	0.15	1								
4. Ideal L2 self	0.27*	-0.04	0.26**	1							
5. Ought to L2 self	0.16	0.40**	0.4	0.05	1						
6. Ethnocentrism	-0.02	0.20*	0.03	0.01	0.20	1					
7. Promotional instrumentality	0.29**	0.03	0.38**	0.49**	0.17	-0.13	1				
8. Preventative instrumentality	-0.07	0.14	0.44**	0.01	0.28**	0.13	0.33**	1			
9. Attitudes toward English	0.34**	-0.01	0.17	0.44**	0.02	-0.1	0.33**	0.07	1		
10. Attitudes toward Online learning	0.05	0.33**	0.12	-0.27*	0.17	0.32**	-0.12	0.18	-0.05	1	
11. Attitudes toward L2 community	0.29**	0.02	0.42**	0.52**	0.10	-0.20	0.51**	0.20	0,53**	-0.10	1
12. Integrativeness	0.34**	-0.05	0.25*	0.38**	-0.04	-0.24	0.54**	0.07	0.47**	-0.00	0.65**

Notes. **p<.01, *p<.05

Two of the attitudinal variables representing learning and the context shared a significant correlation with motivation. The Attitudes toward English variable had a positive weak-to-moderate correlation with the Criterion measure (r = 0.34, p <.01). This means that if participants have positive attitudes toward English, they would be more motivated to learn English. Similarly, Attitudes toward L2 community had a positive weak-to-moderate correlation with the Criterion measure (r = 0.29, p <.01), indicating that if learners were more positive about the English community, they would be more motivated to learn English. Slightly stronger correlations were reported by Islam et al. (2013), who found that these two attitudinal variables have a strong and moderate-to-strong correlation with motivation (Attitudes toward L2 Community, r = 0.63, p <.05; Attitudes toward English culture, r = 0.54, p <.05), respectively.

The one attitude variable that did not share a relationship with motivation levels was the Attitudes toward Online learning variable. This is an interesting result and it shows that the perceptions of the online learning context had no effect on the learners' motivation to study. It was expected for learners who have a positive attitude toward the online context to be more motivated to learn as well, as claimed in Patricia Aguilera-Hermida (2020), but this was not found. It shows that the learning context, at least in terms of in-person versus online context, may not affect how motivated the students are to study. This should come as a welcomed result to policymakers who decided to shift from learning in-person to learning online because the students' motivation levels appear to have been unaffected by this change in learning context. It also may be encouraging for decision makers moving forward who grapple with deciding whether to move classes online or to keep them in-person.

Promotional instrumentality is another subscale that has a weak-to-moderate positive correlation (r = 0.29, p < .01) with the Criterion Measure. This means that when our participants had stronger promotional instrumentality to learn English (e.g., learning English for better jobs or for entering better universities), they were somewhat motivated to learn English. Similar results are also reported in Islam et al.'s (2013) study, in which the participants' motivational level had a weak to moderate correlation with Promotional instrumentality (r = 0.48, p < .05). They also reported that Preventative Instrumentality weakly-to-moderately correlated with motivation (r = 0.38, p < .05), but we found no significant correlation in our results. This means that the motivation level of participants in the current study was not associated with their preventive instrumentality of learning English, such as avoiding failing the courses or being scolded by their parents or professors. These findings are quite surprising, as students under Asian context would be easily perceived as instrumentally driven English learners due to the test heavy nature of the context. This finding showing that students were not greatly motivated by these two instrumental variables may eliminate some stereotypes, and portray new images of Asian English learners.

Lastly, the three cultural contact variables (Travel orientation, Ethnocentrism, and Fear of Assimilation) did not share a relationship with the Criterion variable representing motivation. These results indicate that our participants' attitudes toward travel, their own culture, and the fear of assimilation as a result of learning a language were not associated with their motivation level. These findings are in line with Lu and Berg's (2019) study, in which Ethnocentrism had a non-significant but positive relationship with motivation for Taiwanese university EFL learners. Taken together, the findings of these two studies suggest that students' motivation to learn English in a similar Chinese context may not be affected by ethnocentric factors. It is likely that participants in our study, who live in a city with a booming tourist industry, are knowledgeable about the importance of learning English and its status as a means to access higher societal domains, like higher education and careers. They may feel that learning the language of one country does not represent betraying one's own country and culture. As a

result, they may not be concerned about their national identity being affected due to their English learning.

Correlation among motivation variables

As shown in Table 5, Promotional Instrumentality has a moderate correlation with Ideal L2 Self, which corresponds to the claim made by Dörnyei (2009) that the promotive aspect of instrumentality is highly related to one's ideal self-image. Dörnyei also claimed that the preventative aspect of instrumentality is closely related to one's ought-to self. However, in the current study, Preventative Instrumentality had a weak correlation with the Ought-to Self, and both Preventative Instrumentality and Ought-to Self were not significantly correlated with the Criterion Measure representing motivation. These results are similar to those reported in Taguchi et al, (2009) who compared the relationship between Ideal L2 self, Ought-to L2 self, Promotional instrumentality, and Preventative instrumentality for Japanese, Chinese, and Iranian students. They too found that promotion had a significant moderate correlation with Ideal L2 Self, and that Preventative instrumentality had a weak to moderate correlation with Ought-to L2 Self for each type of learner. Taken together, these findings may indicate that Asian English learners connect their ideal English self with the promotive instrumentality.

Attitudes toward online learning had a positive weak-to-moderate correlation with Fear of Assimilation and Ethnocentrism and a weak negative correlation with the Ideal L2 Self. This means that if students have a more positive ideal-self image and perceiving themselves as proficient English speakers in the future, they may have more negative attitudes toward online learning. In other words, if they think that in the future, they would like to become proficient English speakers, they would be less likely to learn English online and this learning experience would have a negative impact on these participants when portraying their ideal self. Additionally, if they have more positive attitudes toward online learning, then they are more likely to be afraid of being assimilated by the English culture and care more about preserving their national identity.

In short, the participants in the present study are slightly motivated to learn English as a foreign language. Their motivation level relates to their attitudes of the community, language, people, and culture in English-speaking countries. Apart from that, their motivation to learn English is also connected to their ideal self-image (e.g., how they perceive themselves as future language users) and their promotive instrumentality (e.g., to get promotions by learning English), even though the correlation is weak.

Relationships among variables for highly and lowly motivated students

The mean score of participants' criterion measure is 3.92 and participants whose scores are higher than 3.92 were considered as more-motivated students (n = 42) and those below the mean were less motivated (n = 41). The correlation matrix for the more-motivated participants is presented above the diagonal in Table 6 and the less motivated participants are below the diagonal.

Results in Table 6 show that for highly motivated participants, Promotional instrumentality (r = 0.42, p < .01) and Attitudes toward the L2 community (r = 0.43, p < .01) moderately correlated with the Criterion Measure. Integrativeness (r = 0.39, p < 0.01) and Ideal L2 Self (r = 0.35, p < 0.05) had a weak-to-moderate correlation with motivation. These results suggest that this group of students are more motivated to learn English when they have positive attitudes toward the English community and when they view English as having promotional value (e.g., getting good jobs or go further study in the future). What is surprising is that for the more-motivated students, the Attitudes toward English variable has a non-significant correlation with their motivated behavior. This indicates that how these students perceive the English language would not influence their motivation level, which contrasts with findings for

the overall sample. Their image of themselves integrated in English-speaking culture also motivates them to learn, but the effect is not as strong as their promotional purpose. This pattern of results was quite similar to that of the sample overall.

For this group of participants, their Attitudes toward online learning had a moderate negative correlation with Ideal L2 Self (r = -0.46, p < .01) and a weak-to-moderate positive correlation with Fear of Assimilation (r = 0.37, p < .05). This means that when more motivated participants held positive views of learning online, they held a negative view of their future selves and felt that learning English threatened their L1 culture. These results are somewhat surprising to us because we would have expected that views of higher motivated learner would persist regardless of the learning environment (in this case learning online). However, it appears that views of one's future self and the effect of a target language on an L1 culture may be different in an online environment. Though we did not collect data from students studying in an in-person context to compare with these results, future studies may consider doing so to provide additional evidence of this relationship.

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Table 6 Correlation Matrix for Less-motivated (N=41; below diagonal) and high-motivated (N=42; above diagonal)

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1.Criterion Measure	1	-0.26	0.07	0.35*	-0.01	-0.24	0.42**	-0.1	0.25	-0.21	0.43**	0.39**
2. Fear of Assimilation	-0.03	1	0.18	-0.14	0.31*	0.21	0.01	0.12	-0.02	0.37*	-0.01	-0.06
3. Travel orientation	0.17	0.16	1	0.24	0.48**	0.01	0.57**	0.56**	-0.02	0.11	0.37*	0.23
4. Ideal L2 self	-0.23	0.12	0.23	1	0.01	-0.29	0.51**	-0.00	0.38*	-0.46**	0.58*	0.35*
5. Ought to L2 self	0.41**	0.52**	0.27	0.06	1	0.15	0.01	0.26	-0.02	0.18	0.09	-0.06
6. Ethnocentrism	0.08	0.24	0.04	0.30	0.26	1	-0.25	0.13	-0.39*	0.28	-0.23	-0.22
7. Promotional instrumentality	0.22	0.08	0.10	0.46**	0.24	-0.03	1	0.39**	0.35*	-0.09	0.71**	0.63**
8.Preventative instrumentality	0.03	0.17	0.31	0.08	0.33*	0.16	0.27	1	0	0.19	0.27	0.04
9. Attitudes toward English	0.01	0.06	0.36*	0.41**	0.04	0.13	0.3	0.25	1	-0.22	0.55*	0.51**
10. Attitudes toward Online learning	0.08	0.32*	0.07	-0.08	0.12	0.40*	-0.2	0.17	0.09	1	-0.25	-0.05
11. Attitudes toward L2 community	0.07	0.09	0.45**	0.41**	0.08	-0.15	0.26	0.14	0.51**	0.08	1	0.65**
12. Integrativeness	0.04	-0.01	0.18	0.34*	-0.08	-0.31	0.42**	0.15	0.43**	-0.03	0.63**	1

Notes. **p<.01, *p<.05

The results of less-motivated students are quite different from the previous results. Only Ought-to L2 Self had a significant moderate correlation ($r = 0.41$, $p < 0.01$) with the Criterion Measure. For this group of students, what motivates them is their ought-to L2 self. If they think that they need to learn English because of requirements, duties, or responsibilities, they are more likely to study English harder and devote more effort to learning English. Moreover, this group is the only one that demonstrates moderate correlations between Preventative instrumentality and the Ought-to L2 self. These results support the claim made by Dörnyei (2009) that the Preventative instrumentality is highly related to the Ought-to L2 Self. As these students are more motivated to learn English by external requirements, they would try hard to avoid negative outcomes, such as being perceived as incompetent English users/speakers or getting a low grade in their English courses. Therefore, the claim made by Dörnyei may only be true when motivation levels are low because this relationship was not observed in participants with higher motivation levels. These findings somewhat contrast with those reported by Papi et al. (2019), who showed that the Ought-to L2 self (both self and other) had a strong relationship with motivation for participants at higher motivation levels (motivated behaviour mean = 4.07; lower-motivated group in our study mean < 3.92). It is possible that the differences in learning environment (EFL online in Macau for our study; ESL in person in the USA for Papi et al.) and participants (homogenous Chinese L1 learners in our study; varied L1 for Papi et al.) may have contributed to the difference in perspectives.

Furthermore, for less-motivated students, Attitudes toward online learning also had a weak-to-moderate and moderate positive correlation with Fear of Assimilation ($r = 0.32$, $p < 0.01$) and Ethnocentrism ($r = 0.40$, $p < 0.01$), respectively. These interesting findings suggest that lower-motivated learners with positive views of learning online also felt more prideful in their L1 culture and that learning English threatens it. To some degree this makes sense, because learners who are not very motivated to study English (and who may have been forced to learn it, like our participants) may perceive English learning as an incursion onto their home culture. While this is understandable, the learning of English in China has shown to have multiple benefits, both for linguistic development and identity construction (Wallace et al., 2021).

Conclusion

The present study aimed to examine the relationship between several variables and motivation to learn an L2 among undergraduate Chinese EFL students who had taken the English courses online. The results showed that most students would be motivated by their Ideal L2 Self, Promotional instrumentality, their Attitudes toward English, their Attitudes toward the L2 community, and Integrativeness. However, the variables that influenced motivation levels for more-motivated and less-motivated students were different. More-motivated students would be motivated by their Ideal L2 Self, Promotional instrumentality, Attitudes toward L2 community, and Integrativeness, while less-motivated students are only motivated by their Ought-to L2 Self. The findings also revealed that the Ideal L2 self has a moderate correlation with Promotional instrumentality and Ought-to L2 self has a moderate correlation with Preventative instrumentality.

This paper also introduced a new variable to examine perceptions of the online learning context (i.e., Attitudes toward learning online). Participants in our study reported having negative views toward online learning. The results further showed that English as second language learners' attitudes toward online learning may correlate positively with Ethnocentrism, Fear of assimilation, and negatively with Ideal L2 Self. Learners who have a strong sense of national and cultural identity would have positive attitudes toward learning

online. If their attitudes toward online learning are neutral and they wish to become proficient English speakers in the future, they may avoid learning online.

Even though the study reveals interesting findings and adds more empirical support to the motivation literature, the limitations of this study still need to be addressed. Firstly, the small sample size and the narrow context limit the possibility of generalizing the findings and further studies may consider enlarging the sample size and apply similar research in other contexts. Secondly, this study utilized a purely quantitative research design, and the interpretations could benefit from more qualitative data support. Future studies can consider using a mixed-methods approach or add some qualitative evidence to gain a more in-depth understanding of the participants' perceptions and support the quantitative findings. A final limitation is that the current study considered differences in motivation levels as the only individual difference accounted for in the analysis. Other variables, such as gender, age, or academic major may also yield different relationships among the variables. Future studies are thus encouraged to examine if the relationships among the variables in this study may differ according to these attribute variables. Despite these limitations, the current study makes an important contribution to the empirical research examining L2 motivation, particularly the relationships among variables at different levels of motivation.

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