



Article

# Satisfaction with Online Study Abroad Predicted by Motivation and Self-Efficacy: A Perspective Based on the Situated Expectancy-Value Theory during the COVID-19 Epidemic

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Abstract: Due to the globalization of the economy, studying abroad has been widely recognized as bringing many benefits to students. However, the closure of campuses and borders around the world since the COVID-19 pandemic, which began in 2020, has brought about significant changes in studying abroad as learning has moved online. In the context of emergency management, a new way of studying online has arisen. Despite this change, few studies have focused on the value perception of and satisfaction with online study abroad (OSA) in the context of the pandemic or have focused on students enrolled in overseas universities. To address this gap, this study proposed six research hypotheses and a hypothesis model based on the situated expectancy-value theory. The study used the snowballing technique to survey Chinese university faculty members who had studied online at overseas universities during the pandemic. A total of 481 valid data were collected, including 214 (44.5%) male and 267 (55.5%) female respondents. The data were then confirmed to have reliability and validity, and the research model was tested. Results indicated that all of the research hypotheses were supported. More specifically, the perceived value of OSA can be positively predicted by academic and career self-efficacy. Academic and career self-efficacy can be positively predicted by OSA motivation. The perceived value of OSA is positively related to satisfaction with OSA. This shows that promoting satisfaction with OSA for international students is a feasible international education program when international mobility is not possible in particular situations.

**Keywords:** COVID-19; online-study-abroad; satisfaction; self-efficacy; situated expectancy-value theory; value



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## 1. Introduction

High expectations of studying abroad paired with the pressures of a highly competitive society have become key issues in securing a future career in China [1,2]. The impact of COVID-19 on study abroad (SA) has been far-reaching and extensive [3], with universities around the world required to replace their face-to-face teaching with 100% online classes [4], thus making study abroad programs uniquely challenged by the associated facility limitations [5]. Due to travel restrictions and campus closures, many students have changed their study abroad plans to online learning [6]. However, the COVID-19 outbreak led to the uniqueness of this situation, bringing future understanding in online study abroad (OSA).

As Fong et al. stated, the university faculties are the world's top producers of innovative research, and they contribute to progress in their disciplines, to the visibility

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of their institutions, and to scientific progress as a whole [7]. As a result, many Chinese teachers at universities (colleges) need to upgrade their qualifications by studying for a master's degree or a doctorate. Inservice training has also become their first choice. Many university teachers in China choose to study abroad because of the fierce competition for higher education in China. However, it is extremely challenging for university teachers to perform well and to make important contributions in a work environment that is constantly changing while also having to face high teaching and research demands after studying [8]. Students undertake study abroad to explore new cultures and improve their career and economic outcomes [9]; however, most study abroad programs are currently designed for pre-service teachers [10], while the study abroad experience of those who are already serving as teachers has not been much explored, especially in the particular context of this epidemic. Yet, these teachers are an important and specific group of students. Therefore, it is necessary to investigate this group's perceptions of their online study-abroad experiences.

The impact of the COVID-19 pandemic has upended all student mobility patterns, with Chinese students canceling or changing their study-abroad plans to online learning for safety reasons and due to travel restrictions [6,9]. Although many universities around the world have decided to offer online courses for international students to avoid travel, visa, and health issues, virtual courses may not offer the same benefits as physical classes [11]. Therefore, will COVID-19 have a negative impact on international education and student mobility? Different groups of global higher education stakeholders are aware of the far-reaching impact of the epidemic on international higher education, particularly international student mobility [6]. Furthermore, Cheng and Agyeiwaah noted that students would be counted according to favorable actors (cultural experiences gained in the host country, provision of safe vaccinations, and advancement in a competitive Chinese learning environment) and unfavorable actors (COVID health risks and dislike of online instruction) [12]. Therefore, it is important to understand students' satisfaction levels with online study abroad. In particular, few studies have discussed the motivation of Chinese university faculty members to pursue advanced academic degrees at overseas universities; thus, the present study explored the OSA motivation of Chinese university faculty members.

Given the growing importance and benefits of studying abroad, further research is necessary to investigate students' satisfaction with studying abroad [13], and it is equally important to examine online study tours. Although online education is rapidly evolving, variables, such as perceptions and motivations included in students' online environments, have been extensively researched for the development of theory and practice [14]. However, current research on studying abroad during the COVID-19 epidemic focused on exploring epidemic anxiety [15], field study abroad intentions [16], study abroad decision-making processes [17], global mobility [18], online course design [19], and online learning effectiveness [20]. However, few studies have considered satisfaction with online study through the lens of the situated expectation–value theory (SEVT).

Proposed by Eccles and Wigfield, the SEVT framework emphasizes the influence of the nature of the context on an individual's motivation [21]. It conceptualizes utility value or usefulness based on how well a particular task fits an individual's current or future plans. The activity can also reflect the individual's existing satisfaction with the goals. However, these demands are associated with the achievement motivation of students undertaking graduate study and their satisfaction with graduate programs in China [2]. Although past research findings have been important for gaining insights into the study abroad experience [22], it is critical for higher education practitioners and administrators to fully understand the factors that influence the value students place on online studying abroad. However, they have provided little insight into whether students' participation in or satisfaction with online study abroad during the COVID-19 epidemic has met their needs and what their perceptions of it were. Therefore, this study aimed to fill this research gap. Drawing on SEVT, this study examined the relationship between students' motivation, self-efficacy, perceived value, and satisfaction with participating in online study-abroad

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(OSA) programs during the context of the COVID-19 pandemic from the perspective of SEVT.

## 1.1. OSA Motivation

Motivation refers to the reasons why individuals decide to do an activity, how long they are willing to continue performing that activity, and how much effort they are prepared to put into it. Intrinsic motivation means that people are willing to engage in activities only for their benefit because the activity is in line with their needs and not because of the expectation of a reward. Intrinsic motivation is related to the inherent human curiosity and the desire to learn; people can be motivated autonomously if the behavior they engage in is relevant to their values and important to them personally [23,24]. Thus, people with intrinsic motivation experience have a choice in their behavioral tendencies and optimal level of challenge, satisfying their need for competence and autonomy [25]. Accordingly, university faculty members' motivation to study abroad can be defined as the process and commitment that lead to their decisions to initiate, sustain, and regulate their goal-directed behaviors [26].

Intrinsic motivation is a person's commitment to pursue a goal in a particular situation [27]. Academic intrinsic motivation means that students enjoy learning and performing activities for their own sake, where pleasure is inherent in the activity and is characterized by proficiency, curiosity, and persistence in learning challenging, difficult, and novel tasks [28]. Based on the aforementioned literature, how OSA intrinsic motivation drives participants to engage in an online learning-based approach to study abroad for competency enhancement during the COVID-19 epidemic was explored in this study.

## 1.2. Academic and Career Self-Efficacy

Self-efficacy is a domain-specific perceived belief that manifests itself in different forms depending on the domain of activity and situational conditions [29]. People have a high sense of self-efficacy about tasks when they believe that they have the abilities needed to perform them successfully [30]. For example, academic self-efficacy refers to students' belief in their ability to achieve their educational aims [31], while career self-efficacy refers to the self-belief that one can succeed in completing all of the necessary tasks to overcome one's career obstacles [32]. A high level of career self-efficacy can boost one's confidence, resulting in fewer difficulties in one's career [33,34]. Academic self-efficacy has been widely employed as an immediate effect variable in different educational contexts [31]. A strong sense of self-efficacy may help to overcome academic obstacles [35]. Therefore, this study investigated two types of self-efficacy: academic self-efficacy and career self-efficacy. Selfefficacy is a well-researched construct in the study of academic tasks [36–38] and was, in fact, one of the first theoretical frameworks used to conceptualize the motivation of university faculty [39]. However, investigations of self-efficacy in study-abroad contexts are few and far between, and those that have been conducted focused mainly on how people's lives abroad affected their competence beliefs [40]. Thus, the role that faculty members' two types of self-efficacy play in their OSA was explored in this study.

# 1.3. Perceived Value of OSA

In higher education, participation in study-abroad programs is important mainly because numerous participants report many positive values [41,42]. For example, studying abroad is recognized by institutions around the world as helping to improve graduate employment [43], language advancement [44], cross-cultural competence [45,46], and employment competition [47]. There is a long-standing tradition of studying abroad and a perceived value of foreign degrees, which can influence the organizational culture and policy, which are powerful factors that drive university faculty members to study abroad without hesitation [1,48]. The above literature shows that these benefits represent good results of studying abroad, but the benefits for teachers to study abroad have been less

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considered in previous studies. Thus, the role of perceived value in OSA during the COVID-19 epidemic was explored in this study.

# 1.4. Satisfaction with OSA

Satisfaction is defined as an individual's perception of the extent to which their needs, goals, and desires are adequately met [49]. A number of challenges, such as communication difficulties, lack of social support, and cultural differences, can lead to international students experiencing a profound sense of isolation, meaning that study-abroad students usually have lower satisfaction [50]. During the COVID-19 pandemic, the education and learning process has changed to a completely virtual online format. Chinese students' issues with studying abroad amid the COVID-19 pandemic have been largely related to their dissatisfaction with OSA [12]. However, as few studies have considered this issue, students' satisfaction with OSA during the COVID-19 epidemic was explored in this study.

## 2. Research Model and Hypotheses

#### 2.1. Research Model

Eccles and Wigfield proposed the situated expectancy-value theory (SEVT) [20]. The SEVT framework emphasizes the influence of the nature of context on an individual's experience. In addition, SEVT has shown that beliefs are context-sensitive and interact over short periods of time [51]. As seen above, using SEVT, it is possible to explain the motivational functions of alternate learning conditions not only at specific moments but also over time [52]. The COVID-19 pandemic is a special situation that will affect people's perceptions and value judgments. Therefore, this study conceptualizes utility value or usefulness based on how satisfaction with a particular task fits an individual's current or future plans and how it reflects the important motivation that the individual already holds very deeply. That is, when the motivation to participate promotes the belief in competence, it provides people with a better sense of value. Similarly, when people have positive value perceptions, they are more satisfied with the learning task. Accordingly, this study explored OSA motivation, academic and career self-efficacy, perceived value, and satisfaction with OSA based on SEVT and proposed five research hypotheses to construct the situation-based motivation-belief-outcome model, as shown in Figure 1.

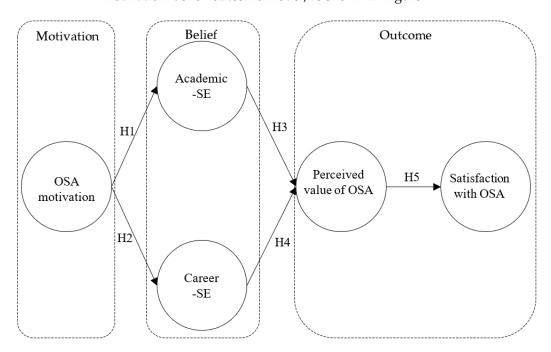


Figure 1. Research Model.

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## 2.2. OSA Motivation and Two Types of Self-Efficacy

In the field of education, motivation has been identified as an important psychological variable affecting online learning [53]. Motivated behaviors depend heavily on the expected positive consequences of performing modeled behaviors, which are expected to be related to self-efficacy [54]. In addition, the social cognitive Expectancy-Value Model also proposes a hypothesis based on motivational beliefs that people's expectations of success and subjective task values are directly related to achievement, task choice, and determination [55]. For example, a significant positive correlation was observed between academic motivation and a sense of academic self-efficacy [56]. Therefore, a very important construct for understanding student motivation is self-efficacy [57]. Moreover, academic motivation is one of the key determinants of student effort and educational choice [58]. In addition, students' motivation to study abroad implies that they may strive to avoid the disadvantages of studying in their home country and to improve their education and career, both of which may be considered important [59]. Studying-abroad motivation has been found to be a predictor of self-efficacy [46]; however, few studies have discussed the two types of self-efficacy—academic and career self-efficacy, to understand how they are related to OSA motivation. The following hypotheses were therefore proposed:

**Hypothesis 1 (H1).** *OSA Motivation is positively related to academic self-efficacy.* 

Hypothesis 2 (H2). OSA Motivation is positively related to career self-efficacy.

# 2.3. Two Types of Self-Efficacy and Perceived Value of OSA

People who believe they are capable of succeeding at a task are more likely to take on and persist with a challenging task. A sense of academic self-efficacy is an expectancy belief that is closely related to Eccles et al.'s success expectancy construct [60]. Self-efficacy influences the quality of human functioning through cognitive, emotional, and decision-making processes; that is, it shapes the individuals' expectations of outcomes, causal attributions for success and failure, and the way individuals motivate themselves and maintain their motivation in the face of obstacles [61]. Thus, self-efficacy affects the choice of learning tasks and perseverance when participating in learning tasks [62]. According to SEVT, people tend to seek out situations and activities for which they have higher expectations of mastery and avoid those for which they have lower expectations of mastery. When individuals believe they are capable of completing a task and expect to succeed, they are more likely to choose to engage in it, persist longer, and achieve better results [60]. Moreover, a person's belief in control of the outcome to be achieved indicates that the higher the perceived academic self-efficacy of international students, the higher their perception of the value of studying abroad [40]. Additionally, Okken et al. suggested that the impact of studying abroad may continue throughout a teacher's career self-efficacy [46]. However, few studies have focused on the relationship between these two types of self-efficacy and the value perception of faculty members studying abroad. Therefore, to explore the relationship between participants' perceptions of the value of OSA, the following hypotheses were proposed:

**Hypothesis 3 (H3).** Academic self-efficacy is positively related to the perceived value of OSA.

**Hypothesis 4 (H4).** Career self-efficacy is positively related to the perceived value of OSA.

## 2.4. Perceived Value and Satisfaction with OSA

Satisfaction is defined as the comparison of the customer's post-service satisfaction with the standard desired satisfaction based on the accumulation of previous experiences, which is essentially an assessment based on the accumulation of past interactions [63]. Students' satisfaction reflects how learners perceive their learning experience [64]. Therefore,

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student satisfaction with learning is important because it is usually positively correlated with learning outcomes [14]. In other words, students will be satisfied with their learning experience when they feel that it is worthwhile. Value validity is defined as the successful achievement of what is desired [65]. This assessment of individual outcomes is based on one's prior experience, skills, understanding, and knowledge [66], while learners' satisfaction is derived from these perceptions of value [67]. According to the expectancy-confirmation model, students' satisfaction with online learning can be confirmed by better learning outcomes [68]; for example, Hsu and Lin indicated that satisfaction was significantly impacted by perceived usefulness [69]. In addition, Giantari et al. showed that students' perceived value of online education had a positive and significant effect on their satisfaction [70]. However, few studies have discussed the relationship between perceived value and the satisfaction of faculty members studying abroad. To understand their relationship, the following hypothesis was proposed:

**Hypothesis 5 (H5).** The perceived value of OSA is positively related to satisfaction with OSA.

#### 3. Research Method

#### 3.1. Procedure

This study used the snowball sampling approach. A recruitment advertisement and link to the questionnaire were posted to an international student community (social media group), and participants helped to forward the questionnaire to other potential participants. Therefore, this study recruited a group of Chinese students with the status of university (college) teachers who participated in OSA during the COVID-19 pandemic by taking master's or doctoral programs at overseas universities. After understanding the purpose of this study and agreeing to participate, participants were asked to self-report their feelings about their satisfaction with OSA during the COVID-19 pandemic, including their OSA motivation, self-efficacy, the perceived value of OSA, and satisfaction with OSA, as well as their demographic information. After completing the survey, participants were asked to share the study website with those they knew who were eligible to participate in this study. A rule of thumb based on the literature suggests that the number of questionnaires should be greater than 500 [71]. It was expected that the data collected in this study might contain some invalid samples; therefore, the target for this study was to collect 600 questionnaires. The online questionnaires were distributed using the Wenjuanxing platform to facilitate sampling, and data were collected starting on 1 November 2021 until 600 questionnaires were received and the site was closed.

# 3.2. Participants

In order to understand the background of the OSA participants, we referred to Wang and Crawford's demographic variables, including gender, age, degree level, number of trips abroad, current place of residence, previous study abroad experience, and so forth [17]. The number of participants in this study (the number of returned questionnaires) was 600, but 119 invalid data were removed (including too short a time to complete the questionnaire, not completing it in full, and not being a student of online study abroad), resulting in 481 valid participants, with a valid return rate of 80.2%. Among the respondents, 214 (44.5%) were male, and 267 (55.5%) were female. There were 408 (84.8%) teaching in colleges and 73 (15.2) teaching in universities; 299 (62.2%) were master's degree holders, and 182 (37.8%) were doctoral degree holders. The number of students studying abroad in Northeast Asia was 84 (17.5%); in Southeast Asia, 50 (10.4%); in Australia, 110 (22.9%); in the Americas, 155 (32.3%); and in Europe, 82 (16.9%). The number of those who had no previous experience with OSA was 150 (31.2%); 74 (15.4%) had up to 6 months of previous experience with OSA; and 74 (15.4%) had between 6 months and 1-year experience. The average age of the participants was 30.55 years old (with a standard deviation of 6.91 years).

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#### 3.3. Measurements

The content of the questionnaire was developed and modified from past research and theory and was reviewed three times by three education experts teaching at international colleges to confirm the appropriateness, completeness, and readability of the items in order to establish the content validity of the instrument. The questionnaire used a 5-point Likert scale where 1 means strongly disagree, and 5 means strongly agree.

#### 3.3.1. OSA Motivation

This scale was adapted from Aresi et al.'s study-abroad motivation scale with seven items to measure participants' perceptions of intrinsic motivation to participate in online learning during the COVID-19 epidemic [72]. An example item is "Because I feel satisfied and happy when learning something new." As the scale measures the participants' motivation regarding their study abroad, a higher total score means a higher level of perceived motivation.

# 3.3.2. Academic and Career Self-Efficacy

The self-efficacy scale, adapted from Bandura, has eight items each to measure participants' perceptions of success in academic and career development tasks [73]. An example of academic self-efficacy is "I believe I can master knowledge if I study hard enough." An example of career self-efficacy is "I can understand the demands of career planning if I plan hard enough." As the scale measures the participants' level of beliefs about their academic and vocational abilities, a higher total score means a higher level of perceived self-efficacy.

## 3.3.3. Perceived Value of OSA

Based on previous studies that examined the value benefits of studying abroad for international students, this study designed 12 items to measure participants' perceptions of the perceived value of OSA by using the value concepts proposed by previous participants. Example items are "I think studying abroad can help me develop a higher level of professional competence" and "I think studying abroad can improve my foreign language skills." As the scale measures the practical value (effectiveness) of participants in online study abroad, a higher total score means a higher level of the perceived value of learning for the individual.

# 3.3.4. Satisfaction with OSA

In this study, six items were used to measure participants' perceptions of whether the OSA learning activities met their expectations or needs, with reference to Jan's online learning immunity scale [74]. An example item is "I think OSA makes it easier for me to learn subject expertise." As the scale measures participants' satisfaction with their online study abroad experience, a higher total score means a higher level of personal perceived satisfaction with learning.

## 3.4. Data Analysis

After the questionnaires were collected, we first conducted item analysis and then applied SPSS 23 to conduct the reliability and validity analysis of the constructs to confirm the credibility of the scale instrument before conducting the validation of the research model.

## 3.4.1. Item Analysis

To confirm the degree of fit of each component, the item analysis of this study adopted first-order confirmatory factor analysis. Hair et al. and Kenny et al. suggested that the  $\chi^2/df$  value should be less than 5 and RMSEA should be less than 0.10, GFI and AGFI should be higher than 0.80, and items with factor loadings (FL) not higher than 0.50 should be deleted from the original questionnaire [75,76]. After deletion, the number of items was reduced from seven to six for OSA motivation, from eight to seven for academic self-efficacy, from eight to seven for career self-efficacy, from 12 to 10 for the perceived value of OSA, and

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from six to five for satisfaction with OSA. The analysis results of this study are shown in Table 1.

Talala	1	First-order CFA.	
Table	1.	riist-order CrA.	

Index	$\chi^2/df$	RMSEA	GFI	AGFI	FL	t
Threshold	<5	< 0.10	>0.80	>0.80	>0.50	>3
OSA Motivation	1.01	0.02	0.99	0.98	$0.65 \sim 0.77$	17.53~21.37
Academic-SE	1.63	0.04	0.99	0.98	0.69~0.76	18.25~21.37
Career-SE	2.01	0.05	0.99	0.97	0.66~0.76	17.32~22.97
Perceived Value of OSA	1.99	0.05	0.97	0.95	0.66~0.80	16.58~23.33
Satisfaction with OSA	1.21	0.02	0.99	0.99	0.68~0.81	17.42~24.22

In this study, external validity was used to determine the explanatory range of this study by first grouping each item in the top 27% and bottom 27% and then conducting a t-test; if the t-value was greater than 3 (\*\*\* p < 0.001), the external validity was considered significant [77]. Table 1 shows that the t-values ranged from 16.58 to 24.22 (\*\*\* p < 0.001), indicating that all items in this study had external validity [78].

# 3.4.2. Reliability and Validity Analysis

In this study, Cronbach's  $\alpha$  was used to confirm the internal consistency of the test scale, and composite reliability (CR) was used to replicate the reliability. Hair et al. suggested that Cronbach's  $\alpha$  and CR values should exceed the standard of 0.70 [75]. In this study, Cronbach's  $\alpha$  values ranged from 0.86 to 0.92, and CR values ranged from 0.86 to 0.91, which met the recommended criteria, as shown in Table 2.

Table 2. Reliability and Validity Analysis.

α	CR	AVE	FL
>0.70	>0.70	>0.50	>0.50
0.86	0.86	0.50	0.71
0.89	0.88	0.52	0.72
0.87	0.87	0.53	0.72
0.92	0.91	0.50	0.71
0.87	0.86	0.55	0.74
	>0.70 0.86 0.89 0.87 0.92	>0.70    >0.70      0.86    0.86      0.89    0.88      0.87    0.87      0.92    0.91	>0.70    >0.70    >0.50      0.86    0.86    0.50      0.89    0.88    0.52      0.87    0.87    0.53      0.92    0.91    0.50

Convergence validity was determined by factor loading (FL) and average variance extracted (AVE). Hair et al. stated that the FL and AVE values should be higher than 0.50 [79]. Table 2 shows that all values met the threshold and indicated that the convergent validity of the questionnaire was acceptable.

# 4. Results

## 4.1. Descriptive Analysis

As can be seen from Table 3, the mean (*M*) for Constructs ranged from 3.73 to 3.9, implying a medium to a high level of perception. The standard deviation (*SD*) for the constructs ranged from 0.72 to 0.83 and did not show too much variation.

Table 3. Descriptive analysis.

Constructs	M	SD
OSA Motivation	3.90	0.73
Academic-SE	3.73	0.75
Career-SE	3.80	0.74
Perceived Value of OSA	3.90	0.72
Satisfaction with OSA	3.78	0.83

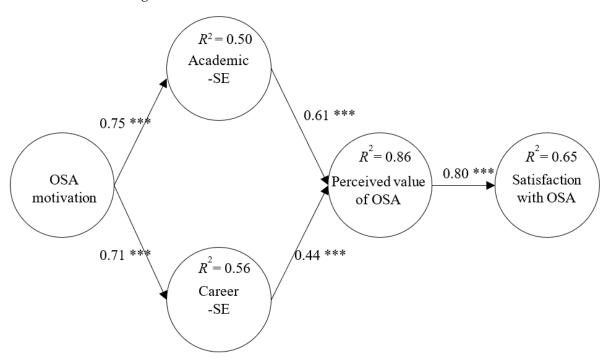
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## 4.2. Model Fit Analysis

The recommended values for the fit indicators are  $\chi^2/df$  less than 5, RMSEA less than 0.10, GFI and AGFI greater than 0.80, and PNFI and PGFI greater than 0.50 (Hair et al., 2019) [75,80]. The fitted index values for this study were  $\chi^2 = 1109$ , df = 522,  $\chi^2/df = 2.12$ , RMSEA = 0.05, GFI = 0.87, and AGFI = 0.86.

# 4.3. Path Analysis

The model validation results show that OSA Motivation had a positive impact on academic self-efficacy ( $\beta=0.75$  \*\*\*) and a positive impact on career self-efficacy ( $\beta=0.71$  \*\*\*). Academic self-efficacy had a positive impact on the perceived value of OSA ( $\beta=0.61$  \*\*\*). Career self-efficacy had a positive impact on the perceived value of OSA ( $\beta=0.44$  \*\*\*). The perceived value of OSA had a positive impact on satisfaction with OSA ( $\beta=0.80$  \*\*\*). See Figure 2.



**Figure 2.** Validation of the Research Model. \*\*\* p < 0.001.

In addition, OSA motivation's  $R^2$  for academic self-efficacy was 50%, and  $f^2$  was 1; OSA motivation's  $R^2$  for career self-efficacy was 56%, and  $f^2$  was 1.27; the two types of self-efficacy's  $R^2$  for the perceived value of OSA was 86%, and  $f^2$  was 6.14; the perceived value of OSA's explanatory power for satisfaction with OSA was 65%, and  $f^2$  was 1.86, as shown in Figure 2.

#### 5. Discussion

According to SEVT, the present study considered OSA as another context of advanced study for Chinese faculty members to enroll in master's or doctoral programs overseas [20]. To understand the value of OSA, the present study explored the correlates between participants' OSA motivation and academic and career self-efficacy that reflected their perceived value of and satisfaction with OSA. The results of this study verified the research model as described below.

Bandura argued that motivation could help in understanding students' self-efficacy [81]. Moreover, student motivation has been found to play a role in the overall learning outcomes of studying abroad [82]. In examining how OSA motivation related to two types of self-efficacy, the present study found that H1 and H2 were positively supported. That is, academic motivation can positively predict a sense of academic self-efficacy. This means

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that the higher the level of motivation participants have to study abroad, the higher their ability and beliefs about their studies and careers.

When people believe they are capable of completing a task and expect to succeed, they are more likely to choose to engage in it, persist longer, and achieve better outcomes [60], and the higher the academic self-efficacy of international students, the higher their perceived value of studying abroad [40]. In examining the correlation between the two types of self-efficacy and participants' perceived value of OSA, the present study found that H3 and H4 were positively supported. That is, when students have higher levels of perceived self-efficacy, they tend to master the learning activities and also perceive a more positive value of OSA. The results of this study show that both types of self-efficacy can positively predict the perceived value of OSA, which echoes the views of the previous literature. This means that the higher the participants' level of self-efficacy, the higher the perceived value of their learning during the online study process.

Alqahtani et al. stated that students' satisfaction with online learning could be confirmed by better learning outcomes [68]; that is, satisfaction is generated from the evaluation of previous experiences. In the context of study-abroad education, the present study examined the correlates between participants' perceived value and satisfaction with OSA and found that H5 was positively supported. That is, students feel satisfied with their learning experience when they experience a valuable online study program.

Huang suggested that satisfaction comes from the internal motivation of self-efficacy and that the degree of self-efficacy is determined by the values of effort and performance [83]. In addition, Daumiller et al. showed that self-efficacy is related, and motivation is more closely related to the value aspect of behavior [26]. Thus, to examine how OSA motivation is related to satisfaction with OSA mediated by the two types of self-efficacy and perceived value, the results of this study revealed that H6 was positively supported. That is, students' motivation to study abroad implies that they may be satisfied with OSA programs by evoking their academic and career self-efficacy.

In summary, although the offline study was the most common and accepted option prior to the COVID-19 epidemic, the resulting online study option was also supported by students during the epidemic. At that time, when schools were closed, and students were unable to leave the country, they supported the resulting online study option. At the same time, they also felt that this emergency option was helpful for their study abroad experience. This may be attributed to the fact that the participants in this study were a special group of people who were both teachers and students. It may also have contributed to the difficulty of making choices during the epidemic and even during their regular studies, as they were required to work and study at the same time.

## 6. Conclusions

Although online learning has been used by most educational institutions at all levels during the pandemic as a way to keep classes open, its effectiveness has been mixed. The closure of borders and the lack of mobility for international students led to satisfaction with OSA as a consequential perception during the pandemic. In addition, the participants in this study had dual identities (in-service teachers and students), so their perceptions of online study abroad may be different from those of single-identity participants. Therefore, in this particular context, this study constructed a research model based on the SEVT framework proposed by Eccles and Wigfield and proposed five research hypotheses [20]. The results of the study validation showed that the higher the level of participants' OSA motivation, the higher the level of academic and career self-efficacy they would have. The higher the level of participants' academic and career self-efficacy, the higher the level of the perceived value of OSA they would have. Finally, the higher the level of participants' perceived value of OSA, the higher the level of satisfaction with OSA they would have. This shows that for college (university) faculty members who need to pursue an advanced degree, OSA is a way to help those with high levels of motivation to meet their academic and professional needs during the epidemic.

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## 6.1. Implications

Although there have been numerous studies on online learning in the COVID-19 context since 2020, there are still very few studies on students' satisfaction with OSA in that context. Therefore, this study helps to expand the perceptions of international students regarding their satisfaction with OSA in this context, and from the descriptive statistics of this study, it is clear that although they did not get the local experience of studying abroad, they still had a positive opinion of participating in OSA during the pandemic. This shows that promoting their OSA motivation can increase international students' satisfaction with OSA. Thus, the model proposed in the present study can be applied when designing an international education program when international mobility is not possible in particular situations.

The pandemic provides an excellent opportunity for various stakeholders to rethink and even redesign higher education through effective risk management programs to improve the future sustainability and resilience of the sector [6]. This study provides an explanation of the impact and learning experience of COVID-19 on students with inservice teacher status and highlights the ways in which online study abroad can meet the needs of this population during the pandemic.

In addition, the SEVT is a newly expanded theoretical framework introduced in 2020, which emphasizes the influence of context on expectancy value. This new framework provides a macro-to-micro theoretical perspective. However, the empirical results of current theoretical applications are still relevant and limited. Therefore, this study can be used as a valid result of the SEVT study. At the same time, this study also confirms the important influence of situational factors on people.

#### 6.2. Limitations and Future Study

There are several limitations of this study that should be noted. First, due to the difficulty of reaching participants during the pandemic disruption, the sample size was only moderate, and although the sample includes Chinese international students from six regions, the responses from different regions are quite limited, with the majority of the samples from the main study-abroad region, and less representation from other regions. Therefore, in the future, we can expand and balance the sample data from different study-abroad regions and use these data to conduct a comparative study in order to have a deeper understanding of students' motivation and satisfaction with OSA in different regions.

Students' satisfaction with learning varies from individual to individual and changes over time; it may be transient, persistent, moderate, or strong [84]. Therefore, it is suggested that a longitudinal study of students' perceptions related to satisfaction with OSA at different stages can be conducted to understand more comprehensively the changes in students' satisfaction. Of course, this study also suggests a qualitative research approach to understand more deeply students' perceptions of online learning or online study abroad. It is also recommended that we use qualitative research to find out more about students' perceptions of online learning and online study abroad, as well as their perceived problems and influences on online learning.

Although the results of this study support the use of online retention as a response to emergency situations, the quality of instruction is bound to be affected during the emergency process. Therefore, how to improve and stabilize the quality and effectiveness of teaching is an important issue. In the post-epidemic era, research on the topic of epidemics is still important, but the focus of the research needs to change. In the past, research focused on the impact and learning outcomes of the epidemic. Thousands of research studies have been conducted to provide a clear picture of the dramatic impact of COVID-19 on education. From now on, research on the epidemic should focus more on how to compensate for learning losses and poor learning progress, promote mental health and well-being, and facilitate the digital transformation of education. At the same time, this study also calls for educators to reflect on and propose strategies that include preventing some unreasonable or harmful educational phenomena and preparing for

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different emergency situations in advance based on past experiences in order to improve the effectiveness of educational management during emergencies.

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