

## Dataset of Vietnamese students' intention in respect of study abroad before and during COVID-19 pandemic

### Authors

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### Abstract

The Covid-19 Pandemic had completely disrupted the worldwide educational system. Many schools chose the online delivery mode for students in case learning losses incurred during social distance decree. However, as to these students who are currently in the study abroad planning stages, reached an intention crossroads, whether standing for certain unchanging decisions in study abroad destinations or changing swiftly due to the unexpected policies in quarantine. This case opened to interpretation, which was based on our e-survey since 3 May to 13 May 2020 with 397 responses covering a range of Vietnamese students. In this dataset, we focused on (i) Students' Demographics; (ii) The previous intention of students to study abroad before and during the Covid-19 ravaged and (iii) Their intention afterwards.

### Keywords

Education; Education system; Study abroad; COVID-19; Vietnam

### Specifications Table

<b>Subject</b>	Education, Education Management
<b>Specific subject area</b>	Study abroad
<b>Type of data</b>	Raw data in excel file, and analysed data
<b>How data were acquired</b>	Data was gathered using an online survey and converted into the .xlsx format for formal analysis in SPSS v.20.

<b>Data format</b>	Raw Analyzed
<b>Parameters for data collection</b>	This research focuses on Vietnamese students (high school level and tertiary level) who are going to plan for study abroad.
<b>Description of data collection</b>	An online survey has been delivered to random students throughout some groups related to study abroad on Facebook. From the connection within group members, the survey drew 410 responses.
<b>Data source location</b>	Information is collected from student in Vietnam (Latitude 16°0'N, Longitude 106°0'E)
<b>Data accessibility</b>	Repository name: Mendeley Data Data identification number: Direct URL to data: <a href="https://data.mendeley.com/datasets/7gpkx5p3z9/1">https://data.mendeley.com/datasets/7gpkx5p3z9/1</a>

### Value of the Data

- The data acquisition makes a special contribution towards research in the field of study abroad in the worldwide pandemic context.
- The dataset can be used for additional analysis of students' intention to choose study abroad destinations due to the policy responses within the Covid-19.
- The dataset can be applied to build models related to investigate the situational factors behind students' intention to study abroad.
- The dataset conveys a message to policymakers in the education sector in respect of exporting and importing study abroad.
- The significant change in the study abroad decision of students before and during Covid-19 partly contributes to overall educational models from the pandemic's damage.

#### 1. Data Description

For years, study abroad brings about many benefits for students, such as personal growth, intercultural development, education and career attainment, and so on [1]. In addition, it is also a crucial source of income for the host colleges, universities and the host government [2, 3]. In Vietnam, education is considered more of an imported service than an exported one [4], and this trend of study abroad has become more popular recently. From the year 2010 to 2019, Vietnam climbed from the ninth to the sixth place among countries with most students studying in the United States [5]. Moreover, the number of Vietnamese students studying in other countries also increased sharply, reached top 5 in Canada, top 4 in Australia, and top 2 in Japan in 2018 [6].

Since the expansion of the Coronavirus, countries around the world have taken many measures to avoid outsiders, in particular imposing travel restrictions, locking down airports, and closing borders [7]. Many teachers, including local as well as expat teachers, met so many problems. Students were suddenly acquainted with online learning. In this particular dataset we portrayed the

decisions and factors related to Vietnamese students' study abroad before and after the COVID-19. It is an extension to our recent studies related to students' learning habit during the COVID-19 [10].

The dataset includes three main parts: (i) Demographic of the partakers; (ii) Factors that influence students' decision to study abroad before COVID-19; and (iii) Factors that influence students' decision to study abroad after COVID-19. The full version of the survey, variable codes and measurements can be found on Mendeley data [11]. From this dataset, researchers can study trends among Vietnamese students as well as various factors that affect students' decision of study abroad, ranging from finance, culture, to communication related.

*Table 1. Descriptive statistics of participant's demographics*

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	188	47.4	47.4	47.4
	Female	209	52.6	52.6	100.0
Major	Natural science, Engineering, Technology	85	21.4	21.4	21.4
	Social science, Humanities, Art, Economics, Management, Business	214	53.9	53.9	75.3
	Other	98	24.7	24.7	100.0
Cur_Location	Hanoi	144	36.3	36.3	36.3
	Ho Chi Minh	128	32.2	32.2	68.5
	Other	125	31.5	31.5	100.0
Prior_Plan	Asia	42	10.6	10.6	10.6
	Europe	53	13.4	13.4	23.9
	America	43	10.8	10.8	34.8
	Oceania	20	5.0	5.0	39.8
	Other	239	60.2	60.2	100.0
Prior_Fin	Full scholarship	235	59.2	59.2	59.2
	Self-finance	162	40.8	40.8	100.0
Prior_program	High school	15	3.8	3.8	3.8

	Bachelor	177	44.6	44.6	48.4
	Master	185	46.6	46.6	95.0
	Doctor	14	3.5	3.5	98.5
	Other	6	1.5	1.5	100.0
Post_Plan	Asia	20	5.0	5.0	5.0
	Europe	15	3.8	3.8	8.8
	America	9	2.3	2.3	11.1
	Oceania	12	3.0	3.0	14.1
	Other	57	14.4	14.4	28.5
	Same country as Prior_Plan	284	71.5	71.5	100.0
	Total	397	100.0	100.0	

*Table 2. Descriptive statistics of various factors influencing study abroad decision*

	N	Mean		S.D
		Statistic	Std. Error	
Prior_living	397	3.34	.028	.566
Prior_travel	397	2.46	.035	.690
Prior_language	397	3.25	.035	.695
Prior_quality	397	3.67	.027	.536
Prior_degree	397	3.41	.032	.632
Prior_IntlStu	397	2.73	.040	.804
Prior_VnStu	397	2.33	.038	.755
Prior_tuition	397	3.52	.034	.684
Prior_scholarship	397	3.68	.029	.583
Prior_livingcost	397	3.54	.031	.617
Prior_parttimejob	397	3.20	.037	.739
Prior_job	397	3.55	.033	.655
Prior_immigration	397	2.78	.044	.881
Prior_shortcut	397	2.58	.042	.845
Prior_distance	397	2.12	.041	.823
Prior_HE_repu	397	2.94	.038	.748
Prior_school_repu	397	3.19	.032	.642
Prior_diversity	397	3.03	.037	.738
Prior_facilities	397	3.29	.030	.596
Prior_stay	397	3.17	.030	.601
Prior_safe	397	3.48	.030	.601

Prior_med	397	3.19	.035	.695
Prior_climate	397	2.75	.037	.733
Prior_partner	397	1.89	.041	.817
Prior_hybrid	397	2.74	.040	.807
Cur_living	397	3.45	.030	.595
Cur_travel	397	2.33	.041	.817
Cur_language	397	3.19	.037	.729
Cur_quality	397	3.55	.030	.607
Cur_degree	397	3.36	.034	.685
Cur_IntlStu	397	2.73	.042	.830
Cur_VnStu	397	2.44	.043	.853
Cur_tuition	397	3.53	.032	.645
Cur_scholarship	397	3.66	.030	.602
Cur_livingcost	397	3.54	.032	.629
Cur_parttimejob	397	3.20	.039	.783
Cur_job	397	3.46	.036	.712
Cur_immigration	397	2.77	.047	.931
Cur_shortcut	397	2.68	.044	.869
Cur_distance	397	2.31	.046	.912
Cur_HE_repu	397	3.04	.038	.754
Cur_school_repu	397	3.23	.033	.667
Cur_diversity	397	3.08	.036	.712
Cur_facilities	397	3.31	.030	.606
Cur_stay	397	3.27	.031	.619
Cur_safe	397	3.52	.031	.626
Cur_med	397	3.39	.034	.671
Cur_climate	397	2.88	.041	.824
Cur_partner	397	1.84	.041	.823
Cur_hybrid	397	3.01	.040	.799

*Table 3. Paired samples statistics*

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Prior_living	3.34	397	.566	.028
	Cur_living	3.45	397	.595	.030
Pair 2	Prior_travel	2.46	397	.690	.035
	Cur_travel	2.33	397	.817	.041
Pair 3	Prior_language	3.25	397	.695	.035
	Cur_language	3.19	397	.729	.037
Pair 4	Prior_quality	3.67	397	.536	.027
	Cur_quality	3.55	397	.607	.030

Pair 5	Prior_degree	3.41	397	.632	.032
	Cur_degree	3.36	397	.685	.034
Pair 6	Prior_IntlStu	2.73	397	.804	.040
	Cur_IntlStu	2.73	397	.830	.042
Pair 7	Prior_VnStu	2.33	397	.755	.038
	Cur_VnStu	2.44	397	.853	.043
Pair 8	Prior_tuition	3.52	397	.684	.034
	Cur_tuition	3.53	397	.645	.032
Pair 9	Prior_scholarship	3.68	397	.583	.029
	Cur_scholarship	3.66	397	.602	.030
Pair 10	Prior_livingcost	3.54	397	.617	.031
	Cur_livingcost	3.54	397	.629	.032
Pair 11	Prior_parttimejob	3.20	397	.739	.037
	Cur_parttimejob	3.20	397	.783	.039
Pair 12	Prior_job	3.55	397	.655	.033
	Cur_job	3.46	397	.712	.036
Pair 13	Prior_immigration	2.78	397	.881	.044
	Cur_immigration	2.77	397	.931	.047
Pair 14	Prior_shortcut	2.58	397	.845	.042
	Cur_shortcut	2.68	397	.869	.044
Pair 15	Prior_distance	2.12	397	.823	.041
	Cur_distance	2.31	397	.912	.046
Pair 16	Prior_HE_repu	2.94	397	.748	.038
	Cur_HE_repu	3.04	397	.754	.038
Pair 17	Prior_school_repu	3.19	397	.642	.032
	Cur_school_repu	3.23	397	.667	.033
Pair 18	Prior_diversity	3.03	397	.738	.037
	Cur_diversity	3.08	397	.712	.036
Pair 19	Prior_facilities	3.29	397	.596	.030
	Cur_facilities	3.31	397	.606	.030
Pair 20	Prior_stay	3.17	397	.601	.030
	Cur_stay	3.27	397	.619	.031
Pair 21	Prior_safe	3.48	397	.601	.030
	Cur_safe	3.52	397	.626	.031
Pair 22	Prior_med	3.19	397	.695	.035
	Cur_med	3.39	397	.671	.034
Pair 23	Prior_climate	2.75	397	.733	.037
	Cur_climate	2.88	397	.824	.041
Pair 24	Prior_partner	1.89	397	.817	.041

	Cur_partner	1.84	397	.823	.041
Pair 25	Prior_hybrid	2.74	397	.807	.040
	Cur_hybrid	3.01	397	.799	.040

Table 4. Paired samples correlations

		N	Correlation	Sig.
Pair 1	Prior_living & Cur_living	397	.557	.000
Pair 2	Prior_travel & Cur_travel	397	.667	.000
Pair 3	Prior_language & Cur_language	397	.734	.000
Pair 4	Prior_quality & Cur_quality	397	.586	.000
Pair 5	Prior_degree & Cur_degree	397	.665	.000
Pair 6	Prior_IntlStu & Cur_IntlStu	397	.634	.000
Pair 7	Prior_VnStu & Cur_VnStu	397	.596	.000
Pair 8	Prior_tuition & Cur_tuition	397	.636	.000
Pair 9	Prior_scholarship & Cur_scholarship	397	.681	.000
Pair 10	Prior_livingcost & Cur_livingcost	397	.649	.000
Pair 11	Prior_parttimejob & Cur_parttimejob	397	.716	.000
Pair 12	Prior_job & Cur_job	397	.648	.000
Pair 13	Prior_immigration & Cur_immigration	397	.726	.000
Pair 14	Prior_shortcut & Cur_shortcut	397	.648	.000
Pair 15	Prior_distance & Cur_distance	397	.606	.000
Pair 16	Prior_HE_repu & Cur_HE_repu	397	.640	.000
Pair 17	Prior_school_repu & Cur_school_repu	397	.640	.000
Pair 18	Prior_diversity & Cur_diversity	397	.664	.000
Pair 19	Prior_facilities & Cur_facilities	397	.588	.000
Pair 20	Prior_stay & Cur_stay	397	.552	.000
Pair 21	Prior_safe & Cur_safe	397	.563	.000
Pair 22	Prior_med & Cur_med	397	.522	.000
Pair 23	Prior_climate & Cur_climate	397	.654	.000
Pair 24	Prior_partner & Cur_partner	397	.722	.000
Pair 25	Prior_hybrid & Cur_hybrid	397	.543	.000

Table 5. Paired samples test

		Paired Differences							
		Mean	S.D	S.E Mean	95% Confidence Interval of the Difference		t	df	Sig. (2- tailed)
					Lower	Upper			
Pair 1	Prior_living - Cur_living	-.116	.547	.027	-.170	-.062	4.217	396	.000

Pair 2	Prior_travel - Cur_travel	.131	.626	.031	.069	.193	4.169	396	.000
Pair 3	Prior_language - Cur_language	.068	.520	.026	.017	.119	2.605	396	.010
Pair 4	Prior_quality - Cur_quality	.116	.524	.026	.064	.168	4.407	396	.000
Pair 5	Prior_degree - Cur_degree	.048	.541	.027	-.006	.101	1.761	396	.079
Pair 6	Prior_IntlStu - Cur_IntlStu	.005	.700	.035	-.064	.074	.143	396	.886
Pair 7	Prior_VnStu - Cur_VnStu	-.113	.728	.037	-.185	-.042	- 3.102	396	.002
Pair 8	Prior_tuition - Cur_tuition	-.015	.568	.029	-.071	.041	-.530	396	.597
Pair 9	Prior_scholarship - Cur_scholarship	.023	.474	.024	-.024	.069	.954	396	.341
Pair 10	Prior_livingcost - Cur_livingcost	.000	.522	.026	-.052	.052	.000	396	1.000
Pair 11	Prior_parttimejob - Cur_parttimejob	.008	.575	.029	-.049	.064	.262	396	.794
Pair 12	Prior_job - Cur_job	.098	.576	.029	.041	.155	3.401	396	.001
Pair 13	Prior_immigration - Cur_immigration	.018	.672	.034	-.049	.084	.523	396	.601
Pair 14	Prior_shortcut - Cur_shortcut	-.098	.720	.036	-.169	-.027	- 2.719	396	.007
Pair 15	Prior_distance - Cur_distance	-.191	.774	.039	-.268	-.115	- 4.926	396	.000
Pair 16	Prior_HE_repu - Cur_HE_repu	-.103	.637	.032	-.166	-.040	- 3.230	396	.001
Pair 17	Prior_school_repu - Cur_school_repu	-.038	.556	.028	-.093	.017	- 1.354	396	.177
Pair 18	Prior_diversity - Cur_diversity	-.048	.595	.030	-.107	.011	- 1.603	396	.110
Pair 19	Prior_facilities - Cur_facilities	-.020	.546	.027	-.074	.034	-.736	396	.462
Pair 20	Prior_stay - Cur_stay	-.101	.577	.029	-.158	-.044	- 3.478	396	.001
Pair 21	Prior_safe - Cur_safe	-.038	.574	.029	-.094	.019	- 1.312	396	.190
Pair 22	Prior_med - Cur_med	-.196	.668	.034	-.262	-.131	- 5.861	396	.000



Pair 23	Prior_climate - Cur_climate	-.136	.653	.033	-.200	-.072	- 4.153	396	.000
Pair 24	Prior_partner - Cur_partner	.048	.612	.031	-.012	.108	1.559	396	.120
Pair 25	Prior_hybrid - Cur_hybrid	-.264	.767	.039	-.340	-.189	- 6.867	396	.000

## 2. Experimental Design, Materials, and Methods

The research group collected data with snowball and convenience sampling methods. The survey was published on the biggest Facebook groups of current and potential Vietnamese overseas students (Scholarship hunter) and then was spread wider by those group members. From 03 May 2020 to 13 May 2020, a total of 410 responses was collected. After cleaning the dataset, 13 invalid observations were cleared, we finally analyzed the dataset of 397 observations.

Since shorter scales are “quick to use” [12], the research group used a four-point Linkert scale to reach a specific respondent opinion and avoid “neutral” responses as well.

Table 1 shows descriptive statistics about participants’ demographics including gender, major, current location, financial source, and study program. Table 2 shows descriptive information regarding influence factors of study abroad decision before the COVID-19 (Prior-) and during the pandemic (Cur-). Those 25 factors are classified into six categories according to Lee's model of decision-making process of studying abroad [13]. This model is the integration of three-phase synthesis model [14] and push-pull model [15].

Lee’s model [11] originally includes seven dimensions: (i) Personal improvement (Prior\_personal, Cur\_personal), (ii) Knowledge and awareness of the host country (Prior\_knowledge, Cur\_knowledge), (iii) Recommendation from others, (iv) Physical and learning environment (Prior\_learning, Cur\_learning), (v) Cost issues (Prior\_cost, Cur\_cost), (vi) Social links and geographic proximity (Prior\_social, Cur\_social), and (vii) Institution image (Prior\_institution, Cur\_institution). However, in order to adapt better to Vietnam context, researchers dropped dimension (iii) as well as omitted and modified some factors within other dimensions. Table 3, 4 and 5 illustrates results of t-test between influence factors before and during the COVID-19.

Moreover, the dataset includes destination countries where students plan to go to, which can be divided into five categories: Asia, Europe, America, Oceania and Other [16]. As a consequence, future researchers can study on the crucial factors that determine destination choice of overseas students, and whether those factors play different roles before and during the pandemic:

$$\text{Prior\_Plan} \sim \beta_0 + \beta_1^*(\text{Prior\_personal}) + \beta_2^*(\text{Prior\_knowledge}) + \beta_3^*(\text{Prior\_learning}) + \beta_4^*(\text{Prior\_cost}) + \beta_5^*(\text{Prior\_social}) + \beta_6^*(\text{Prior\_institution}) + u$$

$$\text{Cur\_Plan} \sim \beta_0 + \beta_1^*(\text{Cur\_personal}) + \beta_2^*(\text{Cur\_knowledge}) + \beta_3^*(\text{Cur\_learning}) + \beta_4^*(\text{Cur\_cost}) + \beta_5^*(\text{Cur\_social}) + \beta_6^*(\text{Cur\_institution}) + u$$

In addition, the change in decision to study abroad (AFFECT) was showed by question number 8 (from 8.1 to 8.5), thus future study can use multinomial logistic regression to find the relationship

between various factors (before and during the COVID-19) and change in the decision to study abroad as the following model:

$$\text{AFFECT} \sim \beta_0 + \beta_1 * (\text{Prior\_personal}) + \beta_2 * (\text{Prior\_knowledge}) + \beta_3 * (\text{Prior\_learning}) + \beta_4 * (\text{Prior\_cost}) + \beta_5 * (\text{Prior\_social}) + \beta_6 * (\text{Prior\_institution}) + u$$

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### **Competing Interests**

The authors declare that they have no known competing financial interests or personal relationships which have, or could be perceived to have, influenced the work reported in this article.

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