

## The Effect of Income and Job Type on Students' Self-Efficacy and Achievement of Migrant Workers in Taiwan

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### Abstract

The Indonesian government provides opportunities for migrant workers to continue their higher education. Through the distance learning program, migrant workers can study to develop their potential in the academic field in addition to working as foreign exchange heroes. This study investigated the current status of students' self-efficacy and achievement of migrant workers in Taiwan and the effect of income and job type on students' self-efficacy and achievement. 100 migrant workers in Taiwan were surveyed. The collected data were analyzed with descriptive analysis, t-Test, and one way ANOVA with Scheffe Method. To understand migrant workers with specific conditions affected by their job type, in-depth interviews were done. Findings revealed current status of students' self-efficacy of migrant workers in Taiwan is slightly low and their achievement is moderately high. Income affects the students' self-efficacy and achievement of migrant workers while job type affects their achievement. The self-ability to stabilize physical and emotional condition is required to improve students' self-efficacy. Moreover, the social interaction among students, teachers, and peers is required to improve their achievement.

**Keywords:** *Students' self-efficacy, students' achievement, migrant worker, income, job type*

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### INTRODUCTION

Based on data of Indonesian Migrant Workers Protection Agency (updated data from May 2021), Taiwan ranks second as a destination country for prospective Indonesian workers with 630 workers in January 2021. Although, it decreases significantly in February because of Covid-19 spread in May 2021. It increases significantly again since Taiwan open the border for Indonesian migrant workers to come in. There are twenty-five types of jobs applied for Indonesian workers in Taiwan. They are domestic worker, caregiver, spa therapist, worker, waiter, bar worker, cook, other workers doing simple job industry, bus boy, restaurant worker, room attendant-maids, fisherman, fitter, housekeepers, operator, welder, production worker, cooker, coffee and tea maker, female handicapped technician, packing crew, cleaning labor, female cleaner, driver, butcher (Indonesian Migrant Workers Protection Agency, 2021). In this study, they were categorized to three main jobs (i.e. factory workers, house maid, and care giver) related to students' data from their university.

The Indonesian government provides opportunities for migrant workers to get bachelor program. Open distance learning is a choice for migrant workers pursue their study. Migrants' awareness of the importance of education is very high, it is proven that currently there are academies provided by the Indonesian government in various countries, such as Indonesia Open University in Saudi Arabia, Hongkong, Korea, Japan, Taiwan, etc. Indonesia

Open University in Taiwan located in Taipei, Taiwan. It is established with Presidential Decree Number 41 of 1984 on 4 September 1984 as the 45th state university (*Indonesia Open University Catalog, 2020*). The purpose of its establishment to abroad are stated on official website of IOU (Universitas Terbuka Taiwan, 2020): (1) Providing broad opportunities for Indonesian citizens and foreign nationals, wherever they live, to obtain higher education; (2) Providing higher education services for those who, due to work or for other reasons, cannot continue their education at face- to-face tertiary institutions; (3) Developing academic and professional education programs in accordance with the real needs of development that have not been developed by many other universities. All of the student are Indonesia migrant workers in Taiwan that desire to continue their study in undergraduate program. Working abroad and studying abroad, both of these conditions might affect to the self-efficacy of the students and their achievement.

Working while studying in abroad, this condition is such a complicated situation for migrant workers. Yet education can be a benefit for their future, for instance, to add students' list job experience, and to get better occupation in the future. However, according to the same theory, the schedule between working and studying may also bring about a negative indirect impact on student employment. Indeed, maintaining substantial employment schedules during the academic year may interfere with learning and academic performance (Baert et al., 2017). This case happens by migrant worker in Covid-19 outbreak. The students had totally online learning, commonly they will have two face-to-face meetings with their teachers. This situation forced them more independent to study and faced barrier to shape their understanding about their lesson.

Nowadays, technology becomes super tool to support education through application or website as media. It changes the way of learning in the classroom into learning in online system. Some universities open classes by using online learning system. It requires students' greater autonomy, as well as a higher level of persistence and effort in the learning tasks. To be aware and know the degree of self-efficacy of students seems particularly relevant (Goulao, 2014). The studies above stated that students' self-efficacy have positive impact to the students' achievement even learning process is done by using online application. Its flexibility is one of benefit that students get from this Open and Distance Learning program.

Bandura (1997) has introduced the theory of self-efficacy, which states that self-efficacy expectations are based on four major sources of information: (1) performance accomplishments (also called inactive mastery experience), (2) vicarious experience, (3) verbal persuasion, and (4) physiological states. As one of topic in social cognitive theory, self-efficacy sources indicated that environment will influence the self-efficacy of students. It will be challenging for students that have different learning environment (not in the classroom as usual), such as online learning environment. In addition, new environment of migrant workers, such as a place they work and study may affect their study. Individuals' physiological and affective states also affect self-efficacy through eliciting divergent interpretations of somatic and emotional arousals (Gao, 2019). Emotion of students are important in learning process. Students that can control their emotion commonly may have high self-efficacy. Bandura (1997) concluded, efficacy beliefs are the product of cognitive processing of diverse sources of efficacy information conveyed actively, vicariously, socially, and physiologically.

Menon (2016) considered that learning achievement was an indicator to evaluate students' absorption of course contents, and teachers' teaching effectiveness could be judged according to students' test performance. As a tool of evaluation, the achievement score

indicates how effective the learning process is. Shadiev, Hwang, Huang, and Liu (2015) regarded learning achievement as the learning outcome and performance during the participation in activities. They explained that achievement is result of what students' performance in the class. Huang, Chen, Hwang, and Huang (2013) referred learning achievement to the evaluation or test of learners after completing learning activities to understand the achievement to the learned contents. It means achievement also can be got from test and other assessments. As conclusion from definitions above, learning achievement or students' achievement is the result of learning process, commonly the result is the score that the students get after doing task, performance or examination.

There are some factors have potential effect on quality of students' achievement. Theory of Educational Productivity by Walberg determined three groups of nine factors based on affective, cognitive and behavioral skills for optimization of learning that affect the quality of academic performance: Aptitude (ability, development and motivation); instruction (amount and quality); environment (home, classroom, peers and television) (Roberts, 2007). Students with good affective skill will have good feelings or stable emotion to face their goals in the class. Students with good cognitive skill will be able to learn and comprehend the lessons well. While students' behavioral skill can interact to their environment easily.

In many previous journals, most of studies discussed about effect of some demographic background (i.e. gender and age) on student' self-efficacy and achievement in university. Few of them discussed about effect of income and job type on students' self-efficacy and achievement for migrant workers, especially for Open University. Bandura (2000) explained that social factors have causal influences on behavior. Vary job type effect on social of students, how they manage their time, how they maintain themselves to learn, and how they make a priority between study and work. Moreover, the previous study found there was a significant statistical relationship between family income and self-efficacy (Seyedi-Andi et al., 2019), but another study found that family income had no significant effect on students' achievement (Azido, 2016).

Findings of this study could fill information about current status of students' self-efficacy and students' achievement, also to understand how income and job type factors that influence their self-efficacy and achievement, especially for Indonesian migrant workers who work in full time job in Taiwan, where they have to deal with study and work schedules and other conditions and they must be able to manage their study in abroad.

## **METHOD**

This study employed multi-methodological approach of quantitative survey and qualitative interview. The questionnaires were administered to 154 students of Indonesia Open University in Taiwan to gather data, 100 students participated. Students' achievement scores were also obtained from Indonesia Open University in Taiwan. This research used questionnaire that adopted and established from the survey instruments used in published literature by Chang (2015) to collect data, then interviewed some respondents with specific condition to additional information about the effect of job type. The number of questionnaires were 44 items. The quantitative data collected were analyzed with descriptive statistic, *t*-test, and one way ANOVA with Scheffe method. This study used the questionnaire designed to investigate the effect of income and job type on students' self-efficacy and students' achievement in Indonesia Open University in Taiwan. The instrument of

questionnaire was sent to three experts for confirming its structure and content validity. This instrument also had high internal consistency of .90 (for the section of “general students’ self-efficacy”), .97 (for the section of “academic students’ self-efficacy”), and .97 (for the total score of two sections together) respectively, which indicated this instrument was reliable.

The subjects were selected using Cluster Random Sampling method. The subjects included in the sample were selected to meet specific criteria. The students have to meet following criteria below to be included in the sample were Indonesia migrant workers in Taiwan who are studying in Indonesia Open University in Taiwan in academic year 2019-2020, The students who are studying in undergraduate program, the students who have been studying at least 6 months (1 academic semester), and the students who would be willing to participate.

Besides, supplementary qualitative data gathered were organized and pre-analyzed by following steps: preparation of raw data files, closed reading of text, creation of categories, overlapping coding and encoded text, continuing revision and refinement of category system. Interviews were used to gather follow-up data from students who had specific conditions based on their responses (i.e. rating of student’s self-efficacy and achievement score). Interview is considered as an effective tool to enable the researcher to obtain in-depth explanations from participants (Kumar, 2014). In this study, semi-structured interviews were employed to collect the qualitative data. Targeted students who had two specific conditions were purposefully Targeted students who had two specific conditions were purposefully selected: (1) care givers with lower self-efficacy ratings: six students (ID: S007, S010, S025, S048, S072, and S078) were selected; (2) factory workers lower achievement score: two students (ID: S073 and S093) were selected. All students in the first group were female; most of them are caregivers. All students in the second condition were male and factory employees. Contacting them via messenger as a media that they frequently used were made for inviting them to participate the qualitative part of this study. After they agreed to be participating, the interviews were conducted by phone calls. All of the questions were designed based on their answers (i.e. ratings of self-efficacy and achievement scores) in questionnaires.

## **RESULT AND DISCUSSION**

### **The Current Status of Students’ Self-Efficacy and Students’ Achievement in Indonesia Open University in Taiwan**

The mean rating of all 100 students’ self-efficacy who enrolled in Indonesia Open University in Taiwan was 73.41 ( $SD=10.12$ ), which meant that on average these students had 73.41% of confidence for their future learning in Indonesia Open University in Taiwan. In fact, the current status of these students’ self-efficacy was slightly low. For the two-subscales of self-efficacy (i.e. general self-efficacy and academic self-efficacy) rating, it was reported in table 1. Moreover, the mean score of the targeted students’ achievement was 85.09 ( $SD=12.97$ ).

**Table 1: Descriptive Reports of Targeted Students' Self-Efficacy and Achievement**

Scale	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>SE</i>
general self-efficacy	100	74.03	9.00	.90
academic self-efficacy	100	72.87	12.18	1.22
self-efficacy (total score)	100	73.41	10.12	1.01
Achievement	93	85.09	12.97	1.34

Note: There are seven students who didn't want to provide their achievement score.

### The effect of Income on Targeted SSE and SA

For the factor of income, there were significant differences between students with the income of NT 20000 and less ( $\leq 20000$ ) and those who with the income more than NT 20000 ( $> 20001$ ) on the self-efficacy ratings (i.e. total score),  $t(98) = 2.307, p < .05$  (see table 4.7 for details), while there were significant differences between those income students' ratings on the subscale of academic self-efficacy. However, there were no significant differences of income students' ratings on the subscale of general self-efficacy. Besides, there were significant differences for the factor of income on students' achievement,  $t(91) = 2.033, p < .05$ . The result showed that students with income  $\leq 20000$  is superior than students with income  $> 20001$ .

**Table 2: Income Effects on Targeted Students' Self-Efficacy and Achievement**

Scale	<i>Income</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>SE</i>	<i>t</i>
general self- efficacy	$\leq 20000$	60	75.33	9.16	1.18	1.793 <sup>n.s.</sup>
	$> 20001$	40	72.08	8.50	1.34	
academic self- efficacy	$\leq 20000$	60	75.22	12.30	1.59	2.427*
	$> 20001$	40	69.34	11.23	1.78	
self-efficacy (total score)	$\leq 20000$	60	75.28	10.20	1.32	2.307*
	$> 20001$	40	70.61	9.44	1.49	
achievement	$\leq 20000$	58	87.57	7.36	.97	2.033*
	$> 20001$	35	80.97	18.33	3.10	

\*  $p < .05$ ; <sup>n.s.</sup>  $p > .05$

Based on interview with participants with specific condition. 010 said that “Because of getting money is not easy, it motivates me to do my best in study.” The students with lower income probably realize that they need to work hard to make money then pay for school fee, it becomes reasonable thing making them superior in students’ self-efficacy and students’ achievement.

### ***The effect of Job Type on Targeted SSE and SA***

Regarding the factor of job type (i.e. three groups—“Factory Employee”, “Housemaid”, “Caregiver”), there were no significant differences among the three groups of students on their self-efficacy ratings (i.e. total score),  $F(2, 97) = 1.523, p > .05$  (see table 4.9 for details). There were no significant differences on the two subscales of self-efficacy ratings as well. However, there were significant differences among the three groups of students on their achievement,  $F(2, 90) = 5.556, p < .01$ . Based on the post hoc analysis with Scheffé method, students whose job was “housemaid” and “caregiver” scored significantly superior than those job was “factory workers”.

**Table 3: Job Effects on Targeted Students’ Self-Efficacy and Achievement**

Scale	Age	N	Mean	SD	F	post hoc
general self- efficacy	Factory	30	72.05	8.93	1.211 <sup>n.s.</sup>	
	Housemaid	22	73.95	7.59		
	Caregiver	48	75.30	9.57		
academic self- efficacy	Factory	30	69.78	11.32	1.470 <sup>n.s.</sup>	
	Housemaid	22	73.34	8.71		
	Caregiver	48	74.58	13.79		
self-efficacy (total score)	Factory	30	70.84	9.65	1.523 <sup>n.s.</sup>	
	Housemaid	22	73.63	7.49		
	Caregiver	48	74.92	11.25		
Achievement	1. Factory	27	78.41	19.92	5.556 <sup>**</sup>	1<2
	2. Housemaid	21	87.52	8.74		1<3
	3. Caregiver	45	87.96	6.61		

<sup>\*\*</sup>  
 $p < .01$ ; <sup>n.s.</sup>  $p > .05$

For elaborating the students with specific condition caused of job type, two themes are provided below:

### ***Care Givers with Lower Students' Self-Efficacy***

Physical and/or emotional condition affect their lower students' self-efficacy. Some students that work as a care givers and house maid have Lower SSE. The main reason why they had low self-efficacy was "distraction" of their physical and/or emotional conditions. Working time as caregiver made them to stand by to care of elderly for whole day. S010 explained, "Because I work as an elderly care giver, so the working time is not certain. Sometimes, I want to do homework, grandmother that I care of suddenly wakes up, and I need to care of her again". S025 also had similar thought,

"Besides I'm tired of working, I also have to take care of my health. So, I don't want to focus too much on studying. If I look after the elderly, like working 24 hours, because the elderly usually wakes up at night every two hours, urinate, so I also wake up. I feel tired because of that". It causes them not focus to study and they need to manage their uncertain time to study."

As the result of their busy working time, they felt fatigue and they did not have extra-time to review the class well. "Due to lack of free time and fatigue at work so I only thought of resting. After online class is over, I still do a lot of e-learning assignments. So, I don't have extra time to learn", said S072. Later on, she added her explanation,

"I always force myself to do assignments after finishing my work. Which makes me insecure because when working on an assignment, I don't double-check my answers, so I worry whether the score of the assignment is good or not due to the lack of time." (S072)

S078 realized that she was a student in Indonesia Open University in Taiwan as well as a foreign employee in Taiwan. It made her more difficult to manage her time, she said, "I go to college while working here. I have to adjust between work and homework it's not easy. I can do homework after working at 10 pm, sometimes there is a class schedule too. I have to choose to work, study or do an assignment first. I work at 7 in the morning, I can't open my computer while working, so I'm stuck in doing homework. I finished work at 10 p.m."

In addition, S078 also stated that, "Sleepiness, that's the problem. If the online class is usually from 10 to 12 pm, so I can work on the problems after class ends until 2 pm. I have to sleep because tomorrow at 7 I work". In Indonesia Open University in Taiwan, there were also many e-learning tasks. Therefore, they have to both work and study. This kind of situation certainly would make them feel tired and sleepy, which, in turn, may lead them to no energy to focus on their studies in school. Either physical or emotional distraction could make students feel less efficacious; that is, they might be less confident in their future learning tasks. As S025 responded, "My problem is because I take care of the elderly, who are often angry or screaming, so I also have to concentrate on my work". Similarly, S078 also expressed her feeling: "Nervous makes me not confident to do it. It seems like I've experienced it before, but I get difficulty to concentrate because I'm tired". Further, she indicated that,

"Sometimes I feel stress when there are many tasks. In my case, employee students become different from students who don't work. The work must be done, so focus on the work too. I lack confidence because of the stress of facing a lot of homework and

information when not attending class. Therefore, I try to always be present. I am elderly care giver, I also do additional work also to cook or clean the house.” (S078)

Accordingly, she gradually realized the risk of doing two things together, i.e. studying and working simultaneously. In fact, if one is in a bad mood and restless, she/he will become more anxious and temperamental that may lead to no or less accomplishment of her/his school works.

### ***Factory Workers with Lower Achievement***

Some factory workers have lower achievement because of Less social interaction Echoing to Bandura’s (1997, 2000) social learning theory, social interactions are essential for positively promoting the development of one’s self-efficacy, which, in turn, may result in better learning performance and achievement. However, some of these students didn’t have enough interactions with peers. As indicated in previous section, those students with higher self-efficacy would like to interact with peers or tutors, where these positive interactions were beneficial for their self-efficacy development. However, for the two students with moderate or higher self-efficacy, they both did not like to interact with peers or tutors about their school works. They only interacted with others for leisure. S073 indicated that, “As I said before, I don’t spend a lot of time on my school works. In fact, I don’t like to interact with others while learning since it is kind of boring.

S093 also mentioned that, “Hard-working is just not my type; I have less interactions with my classmates or tutors”. In brief, the missing of positive social interactions with peers or tutors while learning might be the reason that they had lower achievement. 3. External excuses Based on Bandura’s (1997) perspective, “sense of control” is one of the important factors on one’s self-efficacy development. For these two students, they actually did not fit the abovementioned perspective, where they usually attributed their lower grades to external excuses (Chang, 2010). For example, S073 realized his achievement was not good, but he thought that, “I do my best while learning; I just don’t know why my grades were not good enough. Maybe the content is too difficult for me”. S079 had similar conditions, and he said, “Maybe other classmates are better than me; you know, I think I am not that smart so that I don’t get better grades”. In short, these two students did not fit in the “sense of control” theory, but they had moderate or higher self-efficacy. Thus, it needs more empirical evidences to confirm this kind of findings.

### **CONCLUSION**

The overriding of this study was to explore the current status of students’ self-efficacy and students’ achievement and to investigate the effect of income and job type on students’ self-efficacy and students’ achievement. To achieve of objectives of study, questionnaires were given to all of students in Indonesia Open University in Taiwan. Totally, 100 students filled the questionnaires, and eight students with specific conditions were interviewed for the purpose of collecting supplementary evidences. The average rating of targeted Indonesia Open University in Taiwan students’ self-efficacy was 73.41%, while their average achievement scores were above 85.09. The income affects the students’ self-efficacy and achievement of migrant workers while job type affects their achievement. Caregivers stated that they have unstable physical and/or emotional condition and factory workers stated they have less social interaction among students, teachers, and peers caused they have lower achievement.



In accordance of the findings, the Indonesian Open University in Taiwan faculty members or other universities with same condition need to find out how to promote these students' self-efficacy belief for future learning. Their income and job type may affect their study. Migrant workers need appropriate learning strategy, schedule, kind of task, and motivation of tutors to improve their students' self-efficacy and students' achievement. The Indonesian Open University in Taiwan or other universities with same condition need to provide more desirable learning environment. Students in open university need more social interactions between students and tutors and peers to improve their understanding about the lesson so that they are able to improve their students' self-efficacy and students' achievement. Employing appropriate policy to support students' needs and more teaching and learning strategies are required to support this interaction. For future studies, conducting this kind of study in different campuses (i.e. in different countries) of Indonesia Open University may enrich the findings.

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