INFLUENCING INTERNATIONAL STUDENTS' LEARNING READINESS AND THEIR PERFORMANCE IN SELECTED CHINESE UNIVERSITIES

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Abstract

Local research on international students at Chinese universities is often related to the challenges that they encounter. The research on the impact of such challenges on their academic achievement, such as their learning readiness is still lacking. Therefore, this study aims to analyze the influence of international student learning readiness on their achievement. To address the research objective, a quantitative research involving 275 selected international students with origins in Central Asia, South Asia, Southeast Asia, the Middle East and North Africa and Europe was carried out. Questionnaires were distributed and the data were analyzed using descriptive statistical methods such as mean and percent, and a inferential statistical method (logistic regression). This study found that international students' learning readiness influenced their achievement in the aspects of content knowledge, cognitive skills, study skills and strategies, and habits of success with $p < 0.05$. The finding is available for stakeholders, especially researchers, to carry out further research in identifying the effectiveness of their learning readiness to overcome the challenges that were found by previous researchers.

Keywords: *international students, learning readiness, performance, selected Chinese universities.*

I. INTRODUCTION

Globalization era caused many changes. Changes have occurred in the sectors of technology, economy, infrastructure and education. Changes to education that education is not only a vehicle for children to gain knowledge but also teach children to be able to use the knowledge they have acquired in facing future challenges, especially knowledge about managing finances.

It has never happened before in the world of learning that humans acquire knowledge and skills in such a short time. (R. J. Chu and A. Z. Chu, 2010) reflect the idea that learning strategies which are in line with technological changes are capable of transforming knowledge and skills quickly. In other words, currently, the resources for acquiring and utilizing knowledge and skills are diverse. Consequently, the issue of difficulty in acquiring knowledge and skills less acute.

In fact, various learning methods have been identified, such as e-learning. G. Thachill (2017) said e-learning has become more popular for meeting the instant desire of users, allowing them to have quick access to information and efficient retrieval facilities. However, if learning is implemented using long distance methods such as *e*-learning, there are various challenges that are encountered by

international students. For example, communication barriers. Social, cultural and linguistic uncertainties may also hinder international students' interactions with their instructors. Since international students frequently speak English as a second or additional language, they may be reluctant to respond in *e*-classes due to a lack of confidence or embarrassment in speaking English (H. Hughes, 2018).

Therefore, it is best for students to study in the location where such education is offered.[4] states that the effectiveness of learning strategies is greater with face-to-face communication rather than with long distance implementation. S. Baron and A. Strout-Dapaz (2019). support this statement by saying: "to effectively convey information, communication is necessary. It is important that the method used to convey the information is understandable by its intended recipient".

Thus, there has been an increase in the number of international students in a particular country, especially in developed countries. Figure 1 indicates that the numbers of internationally mobile students are increasing and destinations diversifying yearly.
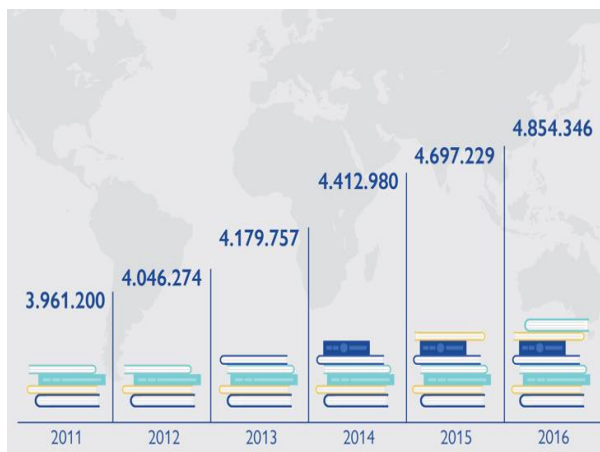

Figure 1. International Mobility Students 2011-2017

Source. UNESCO. (2018). Migration data portal: The bigger picture. Retrieved from https://migrationdataportal.org/themes/international-students

Likewise in China, there has been an increase in international student enrolment as per the
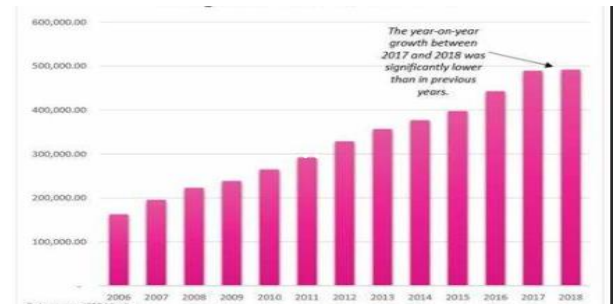
Ministry of Education's statistical data in Figure 2.

Figure 2. International Student Enrolment in China

Source. Ministry of Education. (2019). International Student Enrolment in China. Retrieve from http://en.moe.gov.cn/

Figure 2 presents the increment in international student enrolment in China yearly except for the beginning of 2018, when there is a decline due to global political issues. As China rises as one of the major economies in the world, it has become increasingly involved in the wave of globalization and its citizens are seeking opportunities to receive a Western education (Institute of International Education, 2014). In fact, China also encourages students from other countries to pursue their studies in Chinese universities in order to spread its communist philosophy (B. J. Zhao T, 2011)

According to S. Lillyman and C. Bennett (2019), there are numerous benefits for international students in studying abroad. For many international students, studying abroad offers an exciting opportunity to mix with students and faculty from other countries, which can increase their level of confidence (S. Warring, 2018). In addition, students' views are challenged as they experience personal development and become independent thinkers and agents for change (S. Lillyman and C. Bennett, 2019). Furthermore, due to the education they receive overseas, these students can become globally employable and leaders in their field when they return home (A. Campbell, 2010)

International students, in particularly those who have enrolled in master and doctoral programs are important contributors in many

fields of study, such as management sciences, engineering, biology, science, medicine, and information technology (B. J. Zhao T, 2011). They not only contribute to research activities in these field, but also serve as teaching assistants for various undergraduate courses and laboratory sections (Q. G. Jiao, A. J. Onwuegbuzie, and A. A. Lichtenstein., 2018)

Many students experience linguistic and cultural challenges different from those of local students. Therefore, they often struggle with academic discourse in Chinese. In addition they have challenges in interacting socially with Chinese peers, instructors, and local community members. International students encounter issues in academic matters such as learning readiness, mastering the content of courses and participating in class activities (Q. G. Jiao and A. J. Onwuebguzie,. 2017)

However, research on learning readiness among international students in China and their performance is relatively lacking. The existing studies focus more on quantitative research done by post-graduate students. For example, (G. Li, C. W., and J. Danmu, 2009). quantitative study aims to identify student achievement of international and Chinese students. (L. Zhai, 2018) quantitative research focusses on the adjustment of international students' social support. Similarly, a quantitative study by (Z. Gan, G. Humphreys, and L. Hamp-Lyons., 2004). analyses the successful and unsuccessful achievements of students enrolled in English-language courses.

Hence, there is a need to conduct studies on international student readiness in China. Therefore, this research aims to analyse the ways in which learning readiness influences educational achievement of selected international university students in China. Through this study, stakeholders in education, especially policy makers, institutions of higher learning and communities are able to collaborate in improving the learning effectiveness of international students in order to produce workers who have the characteristics of human capital workers.

Literature Review

A. International Student

G. G. Carroll (2015) defines international student as follows: "...we speak of international students when we mean students who have chosen to travel to another country for tertiary study most of their previous experience will have been of other educational systems, in cultural contexts and sometimes in a language that is different from the one in which they will now study".

UNESCO (2009) define definition is redundant international students as 'those who are studying in a foreign country of which they are not permanent residents. UNESCO (2019) gives the definition of international students as follows: "internationally mobile students typically hold a non-resident visa status to pursue a tertiary degree in the destination country. These individuals are also called degree-mobile students, to emphasize the fact that they would be granted a foreign degree and to distinguish them from credit-mobile student on short exchange or study-abroad trips".

In short, international students are those study not in their origin country for a certain number of years that depends on the students' levels.

B. Readiness

Readiness can be defined as a level of willingness (Smedley, 2007). Schuetze and Slowey (2012) say readiness is the preparation phase of an individual, or organization, or system to achieve its vision through carrying out a plan. They add that the readiness effectiveness is dependent on plans, training, individual competence, and service support or systems. In psychological perceptive, readiness is an ability to react against something temporarily (Song & Hill, 2017).

In sum, readiness is a level of individual ability to do something that has been designed to achieve the set vision.

C. Learning Readiness

In discussing the concept of learning readiness, it is complex to give a precise definition. Esham Badli Ahmad and Faizah Abdul Majid (2010) have said that researchers provide different opinions on the concept of learning readiness. For instance, Knowles (1975) refers to the concept of learning readiness as a process. Song and Hill (2017) and Booth (2007) focus on the characteristics of personality.

In detail, Knowles (1975) explained that learning readiness refers to a process involving an individual learning independently to study learning needs, define learning vision, identify the learning supports in the form of human and raw materials, using the appropriate learning strategies as well as assessing learning outcomes. According to Fisher and Tague (2001) learning readiness refers to the characteristics of behavior, capabilities and personality of an individual to apply to his/her learning process.

In summary, the learning readiness involves individual efforts to receive knowledge, skills and values voluntary through difference strategies such as experience and teaching by teachers.

II. METHODS
A. Research Desain
Research design involves a systematic plan with an inquiry strategy that describes how research is supposed to be carried out based on certain underpinning assumptions (i.e. paradigms of social research) leading up to the data collection. In other words, research design is the logic through which a researcher addresses the research questions (Mason, 2017), and gains data for the study (Denzin & Lincoln, 2016). Therefore, the research design aims to understand the processes and not the product of scientific inquiry (Cohen & Manion, 2014).

This research applied a quantitative method using survey. Survey research involves the collection of data from a sample of individuals through their responses to questions in related instruments such as a questionnaire (Mason, 2017). The data collected from surveys is then statistically analyzed to draw meaningful research outputs [17] Thus, the reason of applying survey research is an efficient method for systematically collecting data from a broad spectrum of individuals and educational settings (Lemelin, Hogg & Baskerville, 2001). This research also used cross-sectional surveys design. The cross-sectional surveys design is applied when data are collected at one point in time from a sample selected to represent a larger population (J. W. Creswell, 2015)

In this research, the quantitative research design using descriptive and inferential statistical methods. The descriptive statistics includes mean, percent and standard deviation. The inferential statistics identifies influences among two or more valuables. Regression Logistics were used in this quantitative research to examine whether student origin affects their learning readiness.

B. Population and Sampling
Purposive sampling was used to select the respondents. Purposive sampling is used when a researcher chooses specific people within the population to use for a particular study [19]. A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling. In applying this method, the respondents for this research were international students from all years of study in selected universities in Beijing, Hubei, Jiangsu and Shanghai. The respondents' size is 275 international students. This figure aligns with Creswell's (2014) suggestion for social science studies in which to identify behavior of human being. His suggestion is between 30 to 400 people. The

characteristics for these respondents are: (i) studying at the university for more than a year, and (ii) volunteering to participate in this research. The specific explanation of the respondent profile is in Table 1.

Table 1. *Respondent Profile*

Number	Item		Amount	Percent
1	*Country Origin*	Central Asia	7	2.50
		South Asia	174	63.30
		Southeast Asia	61	22.20
		Middle East and North Africa	16	5.80
		Europe	17	6.20
		Total	**275**	**100.00**
2.	Gender	Male	208	75.60
		Female	67	24.40
		Total	**275**	**100.00**
3.	Age	18 to 22	24	8.73
		23 to 27	116	42.18
		28 to 32	77	28.00
		33 to 37	46	16.73
		38 to 42	8	2.91
		43 to 47	4	1.45
		Total	**275**	**100.00**
4.	Level of Study	Bachelor	11	4.00
		Master	113	41.09
		Doctorate	151	54.91
		Total	**275**	**100.00**

Table 1 indicates that most respondents are from the South Asia region. The countries included in this region are Bangladesh, India, Nepal, Pakistan and Sri Lanka. There are 174 students from this region. This figure comprises 63.30 percent of the total number of students. The Southeast Asia region includes Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam. There are 61 respondents from this region (22.20%). The Europe region includes Belarus, Georgia, Hungary, Poland and Ukraine. There are 17 respondents from this region (6.20%). The Middle East and North Africa regions include Egypt, Iraq, Palestine, Saudi Arabia and Syria. There are 16 respondents from this region (5.80%). The Central Asia region includes Azerbaijan, Mongolia, Russia, Turkmenistan, and Uzbekistan. This region has 7 international students. This figure represents 2.50%.

There are 208 male students involved in this research. This figure represents 75.60 percent. There are 67 female students (24.40%). Most respondents' age is between 23 and 27, 116 students. This figure represents 42.18 percent. Ages between 28 and 32 is 77 students (28%), 33 to 37 is 46 students (16.73), 18 to 22 is 24 students (8.73%), 38 to 42 is 8 (2.91%) and 43 to 47 is 4 students (1.45%). [There are 77 students between 28 and 32 (28%), 46 between 33 and 37 16.73%), 24 from 18 to 22 (8.73%), 8 from 38 to 42 [2.91%), and 4 from 43 to 47 (1.45%).]

The respondents involved in this research are doctoral, master's and bachelor's degree students. There are 151 doctoral candidates. This figure represents 54.91 percent. Master's candidates are 113 (41.09%) and bachelor's candidates are 11 (4%).

C. Instrument
A research instrument is used to collect data in fieldwork. It assists to keep track of what researcher survey and how to report it (D. Ary, L. C. Jacobs, and A. Razavie, 2914) It must be both valid and precise.

Instruments fall into two broad categories, researcher-completed and subject-completed, distinguished by those instruments that researchers administer versus those that are completed by participants (R. K. Yin, 2015). Researchers chose which type of instrument, or instruments, to use based on the research question.

In this research, a quantitative instrument was designed by the researcher through analyzing relevant literature, particularly for the learning readiness section. Table 2 shows sections and amounts of items based on their domains.

Table 2
Content of Questionnaire

Section	Item	Amount
A	Respondent Demography	8
B	Learning Readiness	

(a) The Disposition for Learning	15
(b) Adequate Study Skills and Strategies	12
(c) Adequate cognitive functioning	9
(d) Adequate knowledge base for the content being presented	2
Total	**46**

Table 2 indicates there are two sections to the questionnaire's content: Section A is respondent demography consisting of 8 items and section B is learning readiness with 38 items. A 7-Point- Likert Scale were used to identify respondents' agreement on their learning readiness. It is ranged from 1 is "Almost Never True to Me" through 7 is "Almost always True for Me".

D. Pilot Test
A pilot study is a preliminary small-scale study that researchers conduct in order to help them decide how best to conduct a large-scale research project. Using a pilot study, a researcher can identify or refine a research question, figure out what methods are best for pursuing it, and estimate how much time and resources will be necessary to complete the larger version, among other things [20]. This means that the researcher will be assisted in modifying the instrument before carrying out the field work.

In this research, researcher analyzed the instrument to identify the suitability of items being used in this context item arrangement and the instructions in the questionnaire. This is to make sure that respondents understand the message that the researcher would like to convey (Gould-Williams, 2013). The pilot test is able to get inputs in order to retain the useful items or delete the useful ones. The pilot test includes the following processes.

Validity

A. Campbell (2010) defines validity is as the best available approximation to the truth or falsity of a given inference, proposition or conclusion. In short, it responds to the question, "were we right?" (D. Ary, L. C. Jacobs, and A. Razavieh). In other words, the extent to which

a research instrument consistently has the same results if it is used in the same situation on repeated occasions (R. K. Yin, 2015)

The instrument verification was carried out from early Novembe through middle of November, 2018. To examine the content validity of the questionnaire, two experts were selected. They are experts in languages and the field of the Social Science. An example of the improvements that were made by the experts was to propose organizing the learning readiness section into four dimensions: the disposition for learning, adequate study skills and strategies, adequate cognitive functioning and adequate knowledge base for the content being presented

Reliability

Reliability is the consistency of the measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects (J. W. Creswell, 2015). In short, it is the repeatability of the measurement. A measure is considered reliable if a respondent's score on the same test given twice is similar. It is important to remember that reliability is not measured, it is estimated (J. W. Creswell, 2015).

In this context, instrument reliability was carried out in late August through September 2018 among 30 international students. This figure is suggested by S. Isaac and W. B. Michael (1995) with their recommendation of between 10 to 30 for pilot test respondents.

The data were analyzed using SPSS software, specifically Cronbach's alpha. Cronbach's$\alpha$is the most commonly used test to determine the internal consistency of an instrument. In this test, the average of all correlations in every combination of split-halves is determined. Instruments with questions that have more than two responses can be used in this test. The Cronbach'sαscore is a number between 0 and 1. An acceptable reliability score is one that is 0.7 or higher. This research's overall

Cronbach's α is more than 0.08. This score is indicated in Table 3.

Table 3. Cronbach's Alpha for Quantitative Reliability

No	Dimension	Cronbach's alpha
(a)	The Disposition for Learning	0.90
(b)	Adequate Study Skills and Strategies	0.89
(c)	Adequate cognitive functioning	0.87
(d)	Adequate knowledge base for the content being presented	0.92
	Total	**0.91**

E. Experiment Designs

After the researcher determined in advance what data should be gathered and what analysis techniques were to be used with the data to achieve the research objectives, the research data collected were largely quantitative. The data collected came from questionnaires. After using the designed instrument and collecting evidence properly, the researcher ensured that it was well constructed. The following explanation is about the procedure based on the research design.

The instruments were distributed from late July through early December 2018. After pilot tests were carried out, the researcher made amendments and distributed the instruments to the respondents. Permission was requested from the International Centers of selected universities in Beijing, Hubei, Jiangsu and Shanghai. The researcher met the center officers for their help in distributing to the respondents. The centers sent email messages together with the instruments to the respondents with a request to complete the instruments within two weeks. After the end period, researcher came and picked up the instruments.

F. Data Analysis

Data analysis is a process of inspecting, cleansing, transforming and modelling data to obtain useful information, informing conclusion and supporting decision-making (R. K. Yin). Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, and is used in different business, science, and social science domains [21]. In other words, data are collected and analyzed to answer questions, test hypotheses or disprove theories (N. K. Denzin and Y. S. Lincoln, 2016)

Descriptive Statistical Method

Descriptive statistical methods are brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire or a sample of a population (S. Isaac and W. B. Michael, 1995) Descriptive statistical methods are divided into measures of central tendency and measures of variability. The measures of central tendency include the mean, median, and mode, while measures of variability include the standard deviation, variance, the minimum and maximum variables, and the kurtosis and skewness.

In this research, this method is used to identify respondents' demography such as students' origins, gender, age and level of study.

Inferential Statistical Method

Inferential statistical methods refer to a process to predict from the data collection [20]. In this research, the researcher took data from samples and made generalizations about a population.

In this research, Logistic regression was used to analyze the impact of learning readiness on academic performance. Logistic regression is the appropriate regression analysis to use when the dependent variable is dichotomous or binary (Harrell, 2017). In fact, logistic regression is a predictive analysis. In other words, logistic regression is used to describe data and to explain the relationship between one dependent binary variable and one or more nominal, ordinal, interval or ratio-level independent variables

III. RESULTS AND DISCUSSION
A. Result
Student Learning Readiness Influence Their Performance

To answer the research purpose on the influence of student learning readiness on their performance, 275 international students from selected universities in China were involved in responding to the provided questionnaires. The collected data were analyzed using Logistic regression. Logistic regression was used to test the following hypothesis. Null hypothesis is to be rejected if observed *p* value is less than the significant level of expected *p* value, $p < 0.05$. This analysis also draws a conclusion on the influence of student learning readiness on performance.

H_0: There is no significant influence of student learning readiness on performance.

There are two assumptions that need to be fulfilled prior analyzing the sample using Logistic regression.

A. Normality Test

The normality test is used to determine if a data set is well-modeled with a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed (Oldrich, 1976). The Kolmogorov–Smirnov test (K–S test or KS test) is a nonparametric test of the equality of continuous, one-dimensional probability distributions that can be used to compare a sample with a reference probability distribution (one-sample K–S test), or to compare two samples (two-sample K–S test) (Marsaglia, Tsang & Wang, 2003). Babu and Rao (2004) said that the strength of using the KS test is that it can be universally applied without restriction to any scientific problem. For example, there is no restriction on the size of the sample, and critical values of probabilities are widely available, with asymptotic formulae for large samples (roughly $n > 30$) and tabulated values for small samples.

The Kolmogorov-Smirnov test is constructed as a statistical hypothesis test by determining a null hypothesis, H0, that the two samples we are testing come from the same distribution. Then, we search for evidence that this

hypothesis should be rejected and express this in terms of a probability. If the likelihood of the samples being from different distributions exceeds a confidence level that we demand, then the original hypothesis is rejected in favor of the hypothesis, H1, that the two samples are from different distributions.

H0: There is no significant difference between student performance and the normal distribution.

Table 4 indicates that student performance data were used to identify data normality. Student performance refers to the Grade Performance Average (GPA). Since the significance expected value is $p = 0.000 < 0.05$, the assumption that that the student origin data are normally distributed is rejected. This means that the sample is not normally distributed.

Table 4. Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	*df*	*Sig.*	Statistic	*df*	*Sig.*
Student performance	.439	275	.000	.613	275	.000

B. Model Fitting

The Hosmer–Lemeshow test is a statistical test for goodness of fit for logistic regression models. It is used frequently in risk prediction models. The test assesses whether or not the observed event rates match expected event rates in subgroups of the model population. The Hosmer–Lemeshow test specifically identifies subgroups as the deciles of fitted risk values. Models for which expected and observed event rates in subgroups are similar are called well calibrated or well fitted model.

Table 5 indicates that The Hosmer and Lemeshow Test's p value is greater than the significance level, indicating that the model fits well.

Table 5. Hosmer and Lemeshow Test

Step	Chi-square	df	Sig
1	3.529	4	0.473

| 2 | 10.619 | 8 | 0.224 |
| 3 | 8.822 | 8 | 0.358 |

C. Likelihood Ratio

A Likelihood Ratio test (LR test) is a statistical test used for comparing the goodness of fit of two statistical models, a *null model* against an *alternative model*. The test is based on the likelihood ratio, which expresses how many times more likely the data are under one model than the other. This likelihood ratio, or equivalently its logarithm, can then be used to compute a *p*-value, or compared to a critical value to decide whether or not to reject the null model.

In this context, Likelihood Ratio analyzed 12 variables using the regression equation based on steps. This analysis found that in step 1, item 28 had a negative significant influence on the academic performance. In step 2, item 22 had a positive significant influence on the academic performance. Item 28 remained a negative significant influence on academic performance. Step 3 shows that items 22, 23, 28 and constant have a significant influence on academic performance. However, item 22, *I choose the location where I study to avoid too much distraction*, has a positive significant influence on academic performance. This means that the more conducive learning environment provided, student academic performance may be enhanced with the probability to achieve the goal at 1.37 times.

Item 23, *I find a comfortable place to study*, has a negative significant influence on academic performance. This finding indicates that the opportunity for international students to have a comfortable learning environment is 0.78 times. This means that the students prefer to prepare in a conducive learning environment in order to achieve a better academic performance. The similar finding for item 28, *When my mind begins to wander during learning session, I make a special effort to keep concentrating*, implies that the opportunity for the student to be more focused on study is low.

Table 6. Likelihood Ratio Test

		B	Exp(B)
Step 1[a]	Q28	-0.204[*]	0.815
	Constant	2.060[***]	7.846
Step 2[b]	Q22	0.202[*]	1.224
	Q28	-0.296[**]	0.744
	Constant	1.463[**]	4.319
Step 3[c]	Q22	0.315[**]	1.370
	Q23	-0.247[*]	0.781
	Q28	-0.242[*]	0.785
	Constant	1.978[**]	7.229

$p<0.05$*; $p<0.01$**; $p<0.001$***

B. Discussion

Quality education is able to enhance the capacity of an individual. C. S. Cash (2017) states that students who receive their education in educational institutions such as university are able to change their behavior as institutional education is a formal and systematic learning. In educational institutions there are strong leaders, teachers who are highly qualified, and facilities are comprehensive and accessible (K. L. Alexander, D. R. Entwisle, and S. D. Bedinger, 2018). Thus, education institutions such as universities are capable of enhancing student achievement in physical, emotional and social terms.

However, without learning readiness among students, the goals as discussed above are less likely to be achieved. Learning readiness is the level of concentration and eagerness to learn among students. According to United Nations International Children's Emergency Fund (2012) the law of readiness is the first primary law of learning, which means that learning takes place when an action trend is aroused through preliminary modification, or attitude. In other words, learning readiness implies a level of particular mindedness and excitement to do something. This means that when an individual is ready to perform an act of learning intrinsically they can learn effectively with greater satisfaction but when they are not ready to learn, all the efforts by them and others will go waste.

In this research finding, there is an influence of study readiness on achievement among international students. In terms of program content knowledge, international students are aware of the importance of mastering content. Content knowledge is related to the body of knowledge and skills that are taught by educators and that students are expected to learn in their registered courses (H. Wenglinsky, 2017). Although international students encounter challenges in their learning especially with regard to language, they still try to overcome these challenges. Local researchers such as (G. Li, C. W., and J. Danmu, 2009), (L. Zhai ,2018) and (Z. Gan, et al., 2004) found that the key challenges for international students in Chinese universities were the differences in language and culture that led to their learning decline.
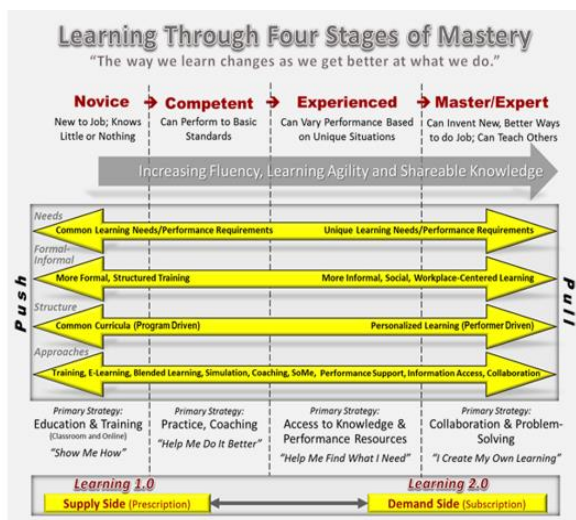

Figure 3. The journey from Novice to Mastery Resource. Marc Rosenberg. (2019). Beyond competence: It's the journey to mastery that counts. Retrieved from https://learningsolutionsmag.com/articles/930/beyond-competence-its-the-journey-to-mastery-that-counts

According to Rosenberg (2019) there are four stages of learning before an individual masters knowledge and skills: (a) Novice: new to knowledge and skills because novice students know little or nothing about the knowledge and skills. Thus, they must be taught the fundamentals of knowledge and skills before novices can have any chance of being productive, (b) Competent students are able to perform their performance based on basic standards. They have acquired their basic knowledge and skills and can now search for more knowledge and skills to improve their mastery, (c) Experienced students are beyond merely competent. They can vary their performance based on unique situations when they encounter a variable and often unpredictable set of study challenges. Thus, they need access to knowledge and skills resources on demand, and the ability to search those resources in ways that are flexible and customizable by them and (d) Masters create new knowledge and skills. They invent new and better ways to enhance their achievement, and they can teach others.

The process of reaching a mastery of knowledge and skills will only be achieved with effective learning skills and strategies. Learning skills refer to those things that individuals do when they have to locate, organize, and remember information (S. G. Paris, M. Y. Lipson, and K. K. Wixson, 2017). Strategic students have strategies for dealing with many different learning tasks (P. D. Pearson and M. Gallagher, 2018). Y. A. Al-Hilawani and A. A. Sartawwi (2017) reported that university students with low GPAs had inadequate study skills and further that students who are academically successful use study skills spontaneously and more efficiently than low- achieving students.

Therefore, learning to use study skills effectively is a crucial part of becoming a strategic student. Helping students learn to use study skills is not the responsibility of only the reading or language arts faculty, but it is something that needs to be done by all faculty members in all classes or course areas (Rosenberg, 2019).

Thus, this study found that international students have skills and strategies for learning but are lagging behind in class. This phenomenon is due to the weakness of some international students in mastering the Chinese language. The language is the medium of communication for teachers in delivering knowledge and skills. This finding matches with the research of [30]. Their quantitative

research found that the crucial challenges for international students are limited English resources, inadequate student-faculty interaction on campus, language barriers and difficulties in socio-cultural adjustment. The implication is that the students feel left behind in learning (W. Wen, D. Hu, and JieHao, 2018) and their learning motivation   decreases (S. Chan, 2017).

However, the solutions to the above challenges are highly dependent on the students' attitudes toward success and their cognitive skills. This research found that international student attitudes and their cognitive skills are high and satisfactory. J. J. Hoover, *Study skills. In E. A. Pollows, J. R. Patton, J. S. Payne & R. A. Payne* (2016) indicates that positive attitudes and habits are the tools to assist students during the learning process in order to acquire and retain new knowledge and skills, and are essential for students' successful performance. A research study by L. Elliot, S. Foster, and M. Stinson (2017) agrees that positive attitudes are important to student achievement, their perception towards new knowledge and skills. Student attitudes often refer to their habits of success. This is because intellect usually has nothing to do with encountering challenges or failing university courses (A. L. Costa and B. Kallick, 2017). More often, success depends on how fully students embrace their attitude and cognitive skills. Cognitive skills are about the brain's ability to process thoughts for learning. R. Ricthhart (2019) says that cognitive skills refer mainly to tasks like memory recall, the ability to learn new information, verbal comprehension, speech, the brain's processing speed and understanding of written materials.

IV. CONCLUSION/RECOMMENDATION

In sum, generally, this study found that there is an influence of international students' learning readiness on their achievement in terms of mastering their content knowledge, cognitive skills, study skills and strategies, and habits of success.

V. REFERENCES

[1]   R. J. Chu and A. Z. Chu, "Multi-level analysis of peer support, Internet self-efficacy and e-learning outcomes: The contextual effects of collectivism and group potency," *Comput. Educ.*, vol. 55, pp. 145–154, 2010.

[2]   G. Thachill, "Academic libraries redefined: Old mission with a new face," *Scroll*, vol. 1, no. 1, pp. 1–6, 2017.

[3]   H. Hughes, "International students' experiences of university libraries and librarians.," *Aust. Acad. Res. Libr.*, vol. 41, no. 2, pp. 77–89, 2018.

[4]   P. Jackson, "Incoming international students and the library: A survey.," *Ref. Serv. Rev.*, vol. 33, no. 2, pp. 197–209, 2015.

[5]   S. Baron and A. Strout-Dapaz, "Communicating with and empowering international students with a library skills set," *Ref. Serv. Rev.*, vol. 29, no. 4, pp. 314–326, 2019.

[6]   B. J. Zhao T, *Intercultural adaptation-it is a two way process: Examples From a British MBA programme. In L. Jin & M. Cortazzi (Eds.), Researching Chinese learners*. New York, NY: Palgrave Macmillan, 2011.

[7]   S. Lillyman and C. Bennett, "Providing a positive learning experience for international students studying at UK universities: A literature review.," *J. Res. Int. Educ.*, vol. 13, no. 1, pp. 63–75, 2019.

[8]   S. Warring, "Facilitating independence amongst Chinese international students completing a bachelor of applied business studies degree," *Innov. Educ. Technol. Int.*, vol. 47, no. 4, pp. 379–392, 2018.

[9]   A. Campbell, "Developing generic skills and attributes of international students: The (ir)relevance of the Australian university experience," *J. High. Educ. Policy Manag.*, vol. 32, no. 5, pp. 487–497, 2010.

[10]   Q. G. Jiao, A. J. Onwuegbuzie, and A. A. Lichtenstein,   . "(). Library anxiety: characteristics of 'at-risk' college students., ()," *Libr. Inf. Sci. Res.*, vol. 18, no. 2, pp. 151–163,)2018.

[11]   Q. G. Jiao and A. J. Onwuebguzie, "Is library anxiety important?," *Libr. Rev.*, vol. 48, no. 6, pp. 278–282, 2017.

[12]   G. Li, C. W., and J. Danmu, "Determinants of international students' academic performance: A comparison between Chinese and other international students," *J. Stud. Int. Educ.*, vol. 14, pp. 389 – 405, 2009.

[13]   L. Zhai, "Studying international students: Adjustment issues and social support," *J. Int. Agric. Ext. Educ.*, vol. 11, no. 1, pp. 98–104, 2018.

[14]   Z. Gan, G. Humphreys, and L. Hamp-Lyons, "Understanding successful and unsuccessful EFL students in Chinese universities," *Mod. Lang. J.*, vol. 88, no. 2, pp. 229 – 240, 2004.

[15] G. G. Carroll, "Designing a library instruction program for international students," *Georg. Libr.*, vol. 31, no. 4, pp. 92–96, 2015.

[16] UNESCO Institute for Statistics, *Global education digest 2009*. Montreal: UNESCO-UIS, 2009.

[17] N. K. Denzin and Y. S. Lincoln, *Handbook of qualitative research*, 5th ed. United States of America: Sage Publications, 2016.

[18] J. W. Creswell, *Research design: Qualitative, quantitative, and mixed methods approaches*, 4th ed. Thousand Oaks, CA: Sage, 2015.

[19] R. K. Yin, *Case study research: Design and methods*, 4th ed. California: Sage, Thousand Oak, 2015.

[20] D. Ary, L. C. Jacobs, and A. Razavieh, *Introduction to research in education*, 9th ed. Wadsworth: Belmont, 2014.

[21] S. Isaac and W. B. Michael, *Handbook in research and evaluation*, 3rd ed. San Diego, CA: EdITS, 1995.

[22] S. M., "Internal consistency reliability," 2015. .

[23] C. S. Cash, "Building conditions and student achievement and behavior," Virginia Polytechnical Institute and State University: Blacksburg, VA, 2017.

[24] K. L. Alexander, D. R. Entwisle, and S. D. Bedinger, "When expectations work: Race and socioeconomic differences in school performance," *Soc. Psychol. Q.*, vol. 57, no. 4, pp. 283–299, 2018.

[25] United Nations International Children's Emergency Fund, *A school readiness: A conceptual framework*. New York: Author, 2012.

[26] H. Wenglinsky, *Teacher classroom practices and student performance: How schools can make a difference*. Princeton, NJ: Research Publication Office, 2017.

[27] S. G. Paris, M. Y. Lipson, and K. K. Wixson, "Becoming a strategic reader," *Contemp. Educ. Psychol.*, vol. 8, no. 3, pp. 293–316, 2017.

[28] P. D. Pearson and M. Gallagher, "The instruction of reading comprehension," *Contemp. Educ. Psychol.*, vol. 8, pp. 317–344, 2018.

[29] Y. A. Al-Hilawani and A. A. Sartawwi, "Study skills and habits of female university students," *Coll. Stud. J.*, vol. 31, pp. 537–544, 2017.

[30] W. Wen, D. Hu, and JieHao, "(2018). International students' experiences in China: Does the planned reverse mobility work?," *Int. J. Educ. Dev.*, vol. 61, pp. 204–210, 2018.

[31] S. Chan, "The preferred learning and teaching styles at a selected junior college in Taiwan," *Diss. Abstr. Int. Sect. A Humanit. Soc. Sci.*, vol. 6, no. 2, p. 888, 2017.

[32] J. J. Hoover, *Study skills. In E. A. Pollows, J. R. Patton, J. S. Payne & R. A. Payne. Strategies: Teaching learners with special needs*, 6th ed. New York: Macmillan Publishing Company, 2016.

[33] L. Elliot, S. Foster, and M. Stinson, "Student study habits using notes from speech-to-text-support service," *Counc. Except. Child.*, vol. 69, no. 1, pp. 25–40, 2017.

[34] A. L. Costa and B. Kallick, *Discovering and exploring habits of mind*. Alexandria, VA: ASCD, 2017.

[35] R. Ricthhart, *Intellectual character: What is it, why it matters, and how to get it*. San Francisco, CA: Jossey-Bass, 2019.