EXAMINING KEY FACTORS THAT IMPACT THE ACADEMIC PERFORMANCE OF INTERNATIONAL STUDENTS IN IRISH HIGHER EDUCATION INSTITUTIONS

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Abstract

In recent years, Ireland has become an ideal study abroad destination for international students (Carl O'Brien, 2024). The quality of education can be deemed one of the key factors to attract international students, which is also shown through students' academic performance (Sarah and Christina, 2019). Little research has been conducted on the factors that influence the academic performance of international students in Ireland. Therefore, this study aims to examine what factors most influence international students' academic performance in Ireland. Besides, the recommendation would be taken to address this issue and improve the international student experience in Ireland. This study uses a quantitative approach with the form of questionnaire including a sample of 150 international students in Irish higher education institutions. The findings show language barriers, academic adjustments, part-time work, and stress level have negative relationships with international students' academic performance, while culture shock has no correlation with their academic performance.

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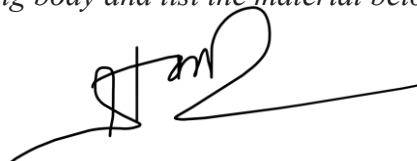**Degree for which thesis is submitted:** MSC in Management

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CHAPTER 1: INTRODUCTION

1.1 Research background

As per saying by OECD (2018), the world has seen a rapid movement of foreign students over the past twenty years. 2016 saw an increase by 3 million in the number of foreign students, reaching 5 million compared to 1999 (OECD, 2018). The EU Directive 2016/801 emphasized the significance of attracting international students on their immigration and residence conditions for the purposes of research, training, and study (Groarke and Durst, 2019). In recent years, Ireland has gradually become a prevalent destination for international students due to its academic excellence, wide range of courses, English-speaking immersion, cultural richness, and welcoming environment (Carl O'Brien, 2024). According to Maura O'Shea (2023), there was a substantial rise in the number of foreign students from 2021 to 2023, increasing by over 3400 students to 35,140 students in 2022/23. 2022 recorded 30,437 foreign students studying in the Irish universities, the highest since the earliest statistics were available.

The Higher Education Authority (HEA) claims that there has been a shift in international education policy, from an emphasis on international education primarily as a source of income and towards a greater focus on quality enhancement. According to Department of Education and Skills (2016), HEA has focused on some main strategic goals, including providing high-quality experiences for all students, enhancing academic quality and research, attracting foreign students, developing a special offer that integrates intercultural aspects and corporate engagement, and supporting equality and diversity through internationalization. High quality learning experiences and academic quality are central elements of international education provision (Department of Education and Skills, 2016). Therefore, this study is conducted to provide understandings regarding determinants that impact international students' academic performance within the Irish context and bring practical values in improving the quality of education and attracting more foreign students coming to study and work.

Many previous studies demonstrate various determinants that impact students' academic performance. According to Antonia Lozano Diaz (2003), academic environment and personal motivation are the two big determinants that intensively influence students' academic performance. Another study by Haile and Nguyen (2008) shows the strong impact of family background and race on the academic success of students. Ali (2017) in a study reveal that working part-time while studying has both positive and negative effects on their academic

performance. Relating to this factor, another study by Azis and Yusanti (2021) also examines the effect of part-time employment on students' academic performance. In contrast to the previous study by Ali (2017), the results of this research discover that students working part-time while studying can still acquire a good academic performance because of the experience they gained as a part-time student and that is not possible if just a normal student studying. Academic stress is another factor mentioned in research made by Li et al. (2023). They find out that students with lower stress levels have better academic performance than students who do not. Another study conducted by Sunday and Henry (2015) provides insight into the learning experiences of foreign students in UK colleges by exploring factors that affect their academic performance, including barriers language barriers, social adaptation barriers, academic issues, and cultural issues. According to Munoz and Portez (2001), some of the significant factors affecting students' academic attainment are economic conditions, family circumstances, study habits, time management skills coupled with health status.

Although above studies underscore the influence of some factors on students' academic performance, there are still some gaps in investigating international student, especially within the Irish context. Besides, there are some previous research that focus on analysing one factor affecting the academic performance. As a result, they cannot provide an all-encompassing view about the impacts of other factors on the academic performance. To fill such gaps, the current study will analyse five key factors, including culture shock, language barriers, academic adjustment issues, part-time work, coupled with stress level and the correlation of them with the academic performance. Furthermore, the findings of this research can suggest practical recommendations for educational institutions to support foreign students to overcome hardships when experiencing in a new academic environment.

1.2 Statement of Research Problem

During these five years, Ireland has attracted a large number of international from different countries, especially India and China, to study (Janice, 2022). To attract and attain more foreign students in the future, Ireland needs to improve the education quality and their academic experience, particularly their academic performance. The research problem of this current study, hence, is examining five key factors, including culture shock, language barriers, academic adjustment issues, part-time work, and stress level that impact international students' academic performance.

1.3 Research significance

Conducting many studies about foreign students' training quality and academic experience in Ireland plays an important role because it has become one of attractive study

abroad destinations with the rapidly increased number of international students each year (Maura O'Shea, 2023). The current study focusses on examining some key factors, including culture shock, language barriers, academic adjustment issues, part-time work, and stress level and their impact of these factors on the academic performance of international student in Irish higher education institutions. It can be said the present study contributes to provide new perspectives about the topic.

Since there is little research on the factors that influence the academic performance of foreign students, this study can fill the existing gaps in the literature by providing thorough analyses within the Irish context. In addition, the study also provides a new research framework that can help better understand key factors and their effect on foreign students' academic performance, which can diversify the existing literature and redefine prior research models in terms of this topic. Besides, this study has several limitations, which will be the impetus for further studies to reexamine this research model in different contexts and explore new aspects related to this topic.

Apart from above theoretical implications, the findings of the study can provide practical suggestions for Irish colleges and administrators to support international students in overcoming obstacles and enhancing their academic performance. When the academic experience and the training quality of foreign students are improved, Ireland will increase its education reputation in the world as well as attract and retain international students who may come to study and stay to work.

1.4 Research rationale

As per saying by de Wit et al. (2015), in the current context of a massive global integration, assimilation, and appropriation, the number of international students enrolling in higher education (HE) has grown remarkably. The importance of international students has considerably increased for host country institutions in particular and the host nation in general when they yield economic benefits, academic prestige, and intercultural interactions (Hazelkorn, 2015). According to Lee et al. (2019), through rising mutual understanding and appreciation of cultural differences, foreign students contribute to cultural diversity in the study environment and societies in the host country. Nevertheless, foreign students experience various obstacles when studying in higher education institutions abroad (Gopalan et al., 2019 and Santini et al., 2017). They have to encounter different issues, for instance, culture shock, language barriers, academic adjustment issues, and time management between study and part-time work (Wit et al.,2015). As a result, the diversity and rapidly growing number of foreign

students in Irish schools is seen the main rationale for examining determinants that affect their academic performance.

According to Boafo-Arthur (2014), although there are some studies that explored different types of issues experienced by foreign students from specific regions in the world, these have mainly been small-scale research, investigating students from popular nations, for example, China, the US, and the UK. Besides, despite the escalating number of international students in Ireland, the gap in the literatures that explore this group is still substantial. This research will offer in-depth understandings about the various factors affecting their academic performance.

The findings from the current research can suggest Irish educational institutions practical recommendations to aid foreign students overcome obstacles and enhance their academic performance when studying in a new country. This is one of the most important rationales of this study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The literature review is extremely important to update current information and research trends on factors affecting international students' academic performance at higher education institutions. This will hopefully provide gaps and areas that need to be researched to improve the education quality. The secondary information has been collected and discussed comprehensively in this chapter to provide in-depth opinions about the factors which affect international students' academic performance in Ireland. To analyse factors that affect international students' academic performance in Ireland, it is necessary to understand what academic performance is. Moreover, conducting a literature review helps the author examine the extent to which the questions will be researched into and focus the questions (Khoo, 2005).

2.2 The concept of Academic performance

According to Narad and Abdullah (2016), the academic performance is one of the significant objectives of education, which can be defined as the acquired knowledge evaluated through scores by teachers. Students achieving academic excellence through helping them demonstrate better academic performance is the most important driving force of academic institutions (Adeyemo, 2001). In a study, Matjasko and Amy (2012) state that academic performance has been defined as grade point average (GPA), test scores, and educational aspirations and attainment. In addition, Osiki (2001) highlights that academic performance is incredibly crucial for anyone interested in educational problems. In fact, it can be deemed as the nucleus, where many important components of the education system revolve. Therefore, academic performance, especially in Higher Education Institutions (HEIs), has been an area of concern of teachers, parents, and policy makers. Academic performance plays an important role as it may help students acquire better job opportunities. Even though it is seemly a simple outcome of education, its influence in any country is multi-faceted. Furthermore, at a basic level, students' academic performance can largely affect the success of any education institution (Narad and Abdullah, 2016). Another study suggests that academic performance is considered the result of many different factors, including psychological, social and economic, leading to the proper development of many aspects of students (Díaz-Morales and Escribano, 2015).

Through examining the existing literature, it is clearly seen that there is the lack of consensus among them in terms of the meaning of academic performance. The term "academic performance" has a wide range of perspective, which creates diversity in its definition. This

study attempts to summarize the concept of Academic Performance to describe the existing critical literature on the factors that influence student academic performance.

Type of factor used to determine learning outcomes	Reference	Definition
Focus on skills and abilities	Pascarella and Tarrenzini (1980)	Academic performance is considered as a student's level of academic and intellectual development.
Focus on skills and abilities	Narad and Abdulla (2016)	Academic performance is the know-how obtained measured by the grades given by teachers and/or educational goals set by students and teachers that must be achieved within a certain period like semester.
Focus on achievement	Finn and Rock (1997)	Better grades and test scores determine academic performance
Focus on achievement	Cambridge University Reporter (2003)	Academic achievement is commonly defined as the performance a student demonstrates in assignments and exams.
Focus on achievement	Choi (2005)	The total number of scores a student accumulated in a course represents academic performance
Focus on achievement	Dennis et al. (2005)	Academic performance is the result of two variables, including the student's personal characteristics and

		the environmental characteristics that the student faces.
Focus on knowledge	Yusuf, Onifade, and Bello (2016)	Academic performance can be defined as the total number of scores that students achieve in numerous assessments such as mid-term and final tests. Besides, it is considered as the clear and quantifiable behaviour of students over a specific period.
Focus on knowledge	Martinez (2007)	Academic performance is defined as the result of exposure to the learning and training process and is commonly measured through grades.
Focus on knowledge	Sharm (2012)	Academic performance is a common measure of success in an education institution. Additionally, it is defined as the extent to which students complete their study.
Focus on career	Colarelli et al. (1991)	Academic performance is determined through the types of job offers, academic performance, and the level of commitment students describe in their careers.
Focus on career	Fralick (1993) and Hecket & Wallis (1998)	Academic achievement is a situation in which the

		education achieved presents opportunities for students to define their job demand, develop their abilities and career path along with ensuring a high satisfaction level related to their career.
Focus on persistence	York et al. (2015)	Academic performance can be defined based on student persistence, which can be acknowledged as the student's progress on an academic basis, to achieve degree completion.

Table 1: Definitions by category of academic performance

2.3 The factors affecting the academic performance of foreign students

Research on determinants that impact students' academic performance is one of the issues that has received early research attention.

A study conducted by Antonia Lozano Diaz (2003) reveals several factors that affect students' academic performance. The author analyses the impact of personal variables (gender and age), personal motivation, family variables (parents' level of education), and academic variables on students' academic performance. Furthermore, the author used the TAMAI questionnaire and a measurement of school failure to collect the data. By regression analysis and ANOVA testing, the study concluded that while academic environment and personal motivation affect academic performance, parents' education level does not.

Another study is conducted by Haile and Nguyen (2008) regarding the factors of high school students' academic performance in some subjects in the U.S. The study focused on exploring possible differential impacts of ethnicity and parental background on the result of examinations of students. The authors find two vital outcomes by using the regression statistical model. The first finding is that Math, science, and reading testing across ethnic groups differs across the conditional quantiles of the measured test scores. More specifically, Hispanic and black group tend to tend to perform worse at higher quantiles. The second finding is that the influence of parents' education and father's occupation is different as well. The

significance of these results is that race and family background can have an impact on academic achievement.

Apart from these factors, the study conducted by Ali (2017) analyses the influence of part time employment on foreign students 'academic performance while studying. The author used the quantitative method with the form of questionnaire applied to international students studying in Auckland, New Zealand. The findings of this research reveal that working part-time while studying has both positive and adverse impacts on their academic performance. Relating to this factor, another study by Azis and Yusanti (2021) also examines the effect of part-time work on students' academic performance. The authors used qualitative descriptive research method to analyse data with the form of both questionnaire and interview. In contrast to the study by Ali (2017), the results of this research discover that students working part-time while studying can still achieve a good academic performance because of the experience they gained as a part-time student and that is not possible if just a normal student studying.

Academic stress is another factor mentioned in the research made by Li et al. (2023). The author used the quantitative method to analyse data through the form of questionnaire, with a sample of 200 students. The research project focuses on analysing the influence of academic stress on university students' academic performance. Data was analysed by using descriptive statistical techniques, stress factor analysis, and multivariate analysis of variance models. From the data, the study finds out that students with lower stress levels have better academic performance than students who do not. The research model is described as follows:
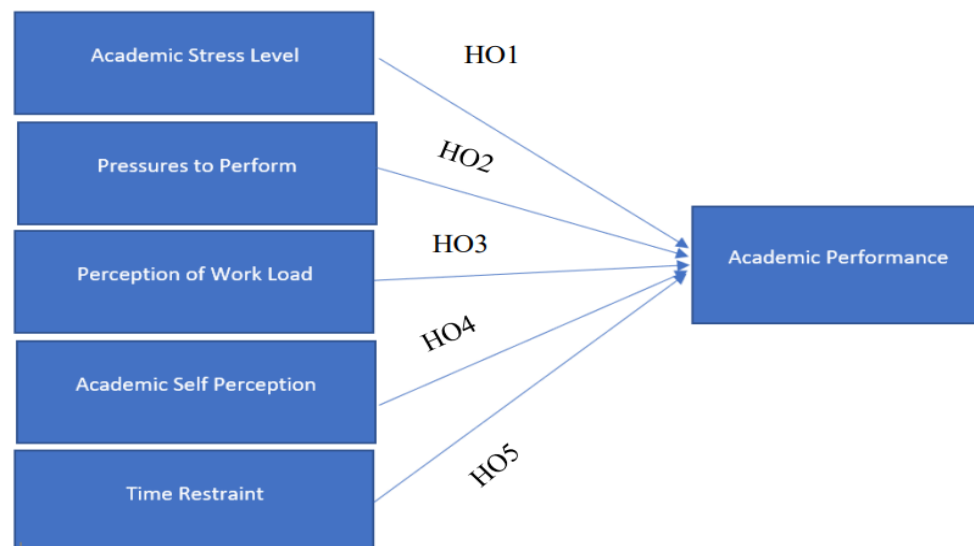
Figure 1: The research model (Source: Li et al., 2023)

For this research model by Li et al. (2023), the striking advantage is that they explored more factors as well as found out new factors, such as academic stress and pressure to perform.

However, it only focuses on research subjects who are university students, which has been commonly reflected in previous literatures.

Particularly, there is another research that analyses factors that influence the academic performance of international students. This study, conducted by Sunday and Henry (2015), provides insight into the learning experiences of foreign students in UK Universities by exploring factors that affect their academic performance, including language barriers, social adaptation barriers, academic issues, and cultural issues. The study used a qualitative method with a semi-structured interview method applied to a total of 10 participants. This research has the conceptual framework as follows:
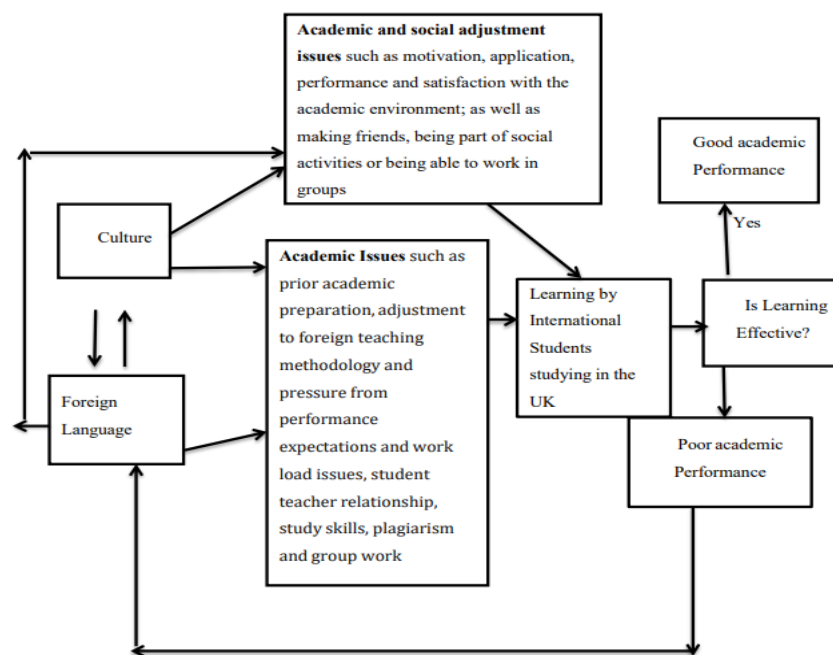
Figure 2: Key Factors Impacting International Students' academic performance in the UK
(Source: Sunday and Henry, 2015)

The advantage of the research model by Sunday and Henry (2015) is that they discovered new determinants, for instance, language barriers, social adaptation challenges, academic issues, and cultural issues and investigated international students in the UK, instead of just general students.

It can be seen that above studies explore diverse factors that impact students' academic performance and use different research methods. From leveraging above research models' advantages, the author built a new research model that examines the impact of five key factors, including culture shock, language barriers, academic issues, part-time work, and stress level, on international students within the Irish context.

2.3.1 Culture shock

According to Kim (2001), most foreign students are prone to experience culture shock once living in a new environment with distinct culture, customs, and living styles. Also, culture shock is understood as the feelings of disorientation rooted by the displacement of familiar things in the home country and their substitution with unfamiliar ones (Hall, 1959). Ayyoub et al. (2019) emphasizes that foreign students experiencing culture shock are prone to have feelings of anxiety, isolation, and confusion. Because international students are not used to living in a new country and not having family nearby, most of them experience culture shock (Cardiff Metropolitan University, 2011). Additionally, one of the remarkable hardships most international students face is the juxtaposition of moving to a distinct environment. In fact, numerous foreign students are more inclined to suffer culture shock in silence instead of seeking help from others since silence and passivity are valued by some educational cultures (Cardiff Metropolitan University, 2011). Grant (2010) suggests that some foreign students might have little experience in learning how to become independent and lack social engagement. Thus, it may trigger them to feel isolated and vague in studying environment and daily life when living in a new nation.

International students can encounter serious problems when living and studying in a new country, particularly academic problems (Ayyoub et al.,2019 and Furnham, 2010). Foreign students often encounter some learning problems such as not fully understanding or feeling confused with lecturers and colleges' regulations (Furnham, 2010) as well as lacking access to teachers (Mesidor & Sly, 2016 and Hailu & Ku, 2014). Since lecturers have distinct teaching styles and cultural understanding of the relationship between teachers and students, international students may feel like their teachers are not often as supportive as expected (Mustafa, 2022). More specifically, there are significant differences in teaching styles between Western cultures and Oriental cultures (Xiaoqiong, 2008 and Hailu & Ku, 2014). Teachers in the former are more likely to be friendly and open with students, whereas teachers in the latter are strict and reserved. Regarding speaking, Asian students must always use teachers' title and last name to address, whereas Western students can address their teachers by their first name. According to Hofstede (2011), the power distance between teachers and students from collectivist cultures is greater than individualist cultures. Therefore, students coming from the former could be considered reserved by their teachers and peers in the host country (Ward, Bochner and Furnham 2001). A study by Schein (2015) highlights international students' lack of confidence when participating in some classroom activities due to culture shock. Unfamiliar teaching styles and distinct classroom dynamics may make them feel nervous and uncomfortable, which leads to decreased class participation and reluctance to express their

ideas in class as well as a passive learning attitude. Gradually, this lack of class engagement can make them difficult to understand lectures and adversely affect their academic performance.

2.3.2 Language barriers

Some existing studies have shown a strong relationship between linguistic ability and international students' academic performance as they study in a new country. According to Lin & Yi (1997) and Fatima (2001), language barriers are a major challenge that foreign students encounter regarding their academic performance. Due to not having poor vocabulary and enough information about the host country's social norms, many international students have faced hurdles in communication with their teachers, peers, and locals. Also, they must work hard to meet their academic writing skills as required (Sawir et al., 2012). Brown and Holloway (2008) find that language barriers made some students who participated in their study stressed to achieve good academic performance. While language seemly is essential in determining international students' academic achievement within higher education, it is considered as a major acculturation difficulty for most of them (Wilton and Constantine, 2003). This is a barrier that foreign students from non-English speaking nations need to work hard to overcome (Foley, 2010). According to Yan and Berliner (2011), Chinese students studying in the US consider language one of the biggest causes of difficulty in the adjustment process. In a study, they discover that Chinese students who perform well on standardized English tests, such as TOEFL still have difficulties in language due to cultural gap in using English in daily communication between China and the US. Hailu & Ku 2014 and Mahmud et al. (2010) emphasizes that even if international students understand the teaching method, the dialect spoken may differ in accent, phrasing, and idioms. Also, Gutierrez (2010) determines that language is at the heart of many of the problems foreign students encounter when living and studying in a new environment. According to Cabanillas (2023), language barriers can exacerbate the problem as international students have trouble grasping every word the professor says. Students' comprehension can be significantly affected by the acoustics of the classroom with along with the volume and clarity of the professor. Besides, international students can find it more challenging to follow some lectures when they lack visual aids. Cabanillas (2023) also state that language barriers can trigger feelings of apprehension, discomfort, and hardship keeping up with the pace of the discussion as well as understanding questions. They find it strenuous to express their message and they sometimes feel like they are talking "Foolishly" when communicating with their lecturers and peers. Thus, language barriers are deemed as a factor that significantly affect students' academic performance (Andrade and Evans, 2009).

2.3.3 Academic adjustment issues

Academic issues are one of the challenges that most students experience when studying in a new country with a dissimilar educational system, for instance, the relationship between students and teachers, study skills, group assignments and plagiarism (Edward and Ran, 2006). Besides, they may experience difficulties related to understanding assessment strategies and grading systems (Grant, 2010). Kelly et al. (2012) suggests that international students must meet their learning needs in a completely different educational system, in which many aspects may are distinct from the system they are familiar with. There are various differences in the educational system among countries, including the number of mandatory courses or years to earn a degree, the number of required credits, passing scores, the style of classroom interaction, the skill set needed to prepare for an exam, and the types of answers required on the exam. These researchers present evidence that international students tend to plagiarize, not intentionally but as teachers assume they have been taught proper referencing in their home country. According to Carroll (2008), many are unfamiliar with academic tasks, for instance, essays, presentations, individual reflection reports, coupled with group work activities. This makes them feel stressed when they are unable to keep good grades that they once achieved in their home country. International students' academic performance, hence, may be affected by previous learning experiences and their challenges to adapt to the new environment. Arthur (2004) also emphasizes that difficulties in adapting to a new academic system can disrupt prior academic success of some students achieved in their home country's curriculum and add pressure to redefine personal abilities.

2.3.4 Part-time job

According to Tessema et al. (2014) and Hunt et al. (2004), multiple students have found it challenging to manage time and have a balance between college schedule and part-time work to complete academic work. The number of students working part-time has rapidly increased (Logan et al., 2016). Due to the increasing number of work hours, numerous students tended to spend less time studying, resulting in their worse academic performance. Besides, Oi I and Morrison (2005) in their study find that numerous students have struggled to enhance critical skills in education since part-time work has a negative impact on many aspects of students' learning experience and academic performance. Humphrey (2006) argues that students who work part-time were less socially engaged and did not have enough time to do their coursework.

Salamonson and Andrew (2006) carried out a study on the influences of age, ethnicity, and work on nursing students' academic performance in an Australian university. The researchers collected data within 2 years by using the quantitative survey design. The findings

indicate that age was positively correlated with the academic performance, whereas ethnicity and number of work hours were negatively correlated with the academic performance. When students have more work hours per week, they are more likely to miss lectures, lack class participations, and spend less time to study, which negatively affects their academic performance (Carnevale, 2019 and Carney et al., 2005). Moreover, Staff and colleagues (2010) also did a research to evaluate the relationship between work intensity of students and their academic performance. The results indicate that students working every over-20-hour week do not study as well in school as those who work fewer hours. The researchers suggest that students who spend more time working part-time tend to struggle in class enrolment and in their academic performance. Darolia (2014) and Hall (2010) also underscore the negative effects of working part-time on students' academic performance concerning end-to-year grades and degree results when both studying and working. Most prior studies show that time management is the most critical factor in the practice of both studying and working (Hall, 2010). Not having a balance between study and work can adversely affect the academic results of many students.

2.3.5 Stress level

A large number of students have facing different types of stress which profoundly affect their academic performance (Haynes, 2002). When they rush to meet deadlines or during exam periods, the stress level will significantly increase (Cruwys et al.,2015). Stallman (2010) and Adlaf et al. (2010) suggest that college students experience high stress level and therefore have lower levels of mental health. Towbwes and Cohen (1996) observe that college students are more susceptible to feeling stressed when adapting to new environments with different academic issues and culture. As per saying by Wilks (2008), academic performance is the combination of learning pressures that exceed an individual's ability to adapt. Lumley and Procenzano (2008) state that when students experience high levels of stress, their academic performance will be negatively affected.

Stoliker and Lafreniere (2015) carried out a study regarding analysing the effect of stress, burnout, and solitude on students' overall academic performance in in a Canadian university. The results of the study show that such factors have a negative effect on their academic experience and academic performance. Students have to handle various problems and pressure from assignments, part-time work, family to social relationships, which lead to their high stress level. Another study made by Struthers et al. (2000) also reflects these findings. They find that college students are under much pressure in study and work, especially when pursuing their academic goals. According to Regehr et al. (2013), rates of depression and

anxiety among college students have been significantly increased. They also underscore the adverse impact of such mental issues on students' academic performance. Another study indicates that the stress related to culture shock can exhibit in a variety of physical disorders with several symptoms, such as headaches and sleep disruption (Qun et al., 2018). Negatively, physical stress can further impact students' academic and social abilities.

2.4 The importance of international students in Ireland

As per saying by Maura O'Shea (2023), the number of resident international students in Ireland has grown by over 3400 students from 31,720 in 2021/22 to 35,140 in 2022/23. Over a ten-year period, from 2011/12 to 2021/22, the number of foreign students in Ireland rose by 187.9%. 2022 recorded 30,437 foreign students studying at Irish universities the highest since the earliest statistics were available.

According to Janice (2022), the US is the country that had the largest number of students studying in Ireland, followed by India and China. The largest increase over time was recorded from India - from accounting for 3% of international students in 2007/08, increasing slowly and hitting a peak of 14% in 2019/20. Less than half of international students are studying a Bachelor of Honors program (47%). 25% are enrolled in a master's program and 14% are enrolled in a PhD program.

The number of international students in Ireland between 2011 and 2022

Year	Number
2011	11,466
2012	10,571
2013	13,162
2014	16,508
2015	20,698
2016	23,242
2017	24,025
2018	25,630
2019	28,275
2020	28,726
2021	25,383
2022	30,437
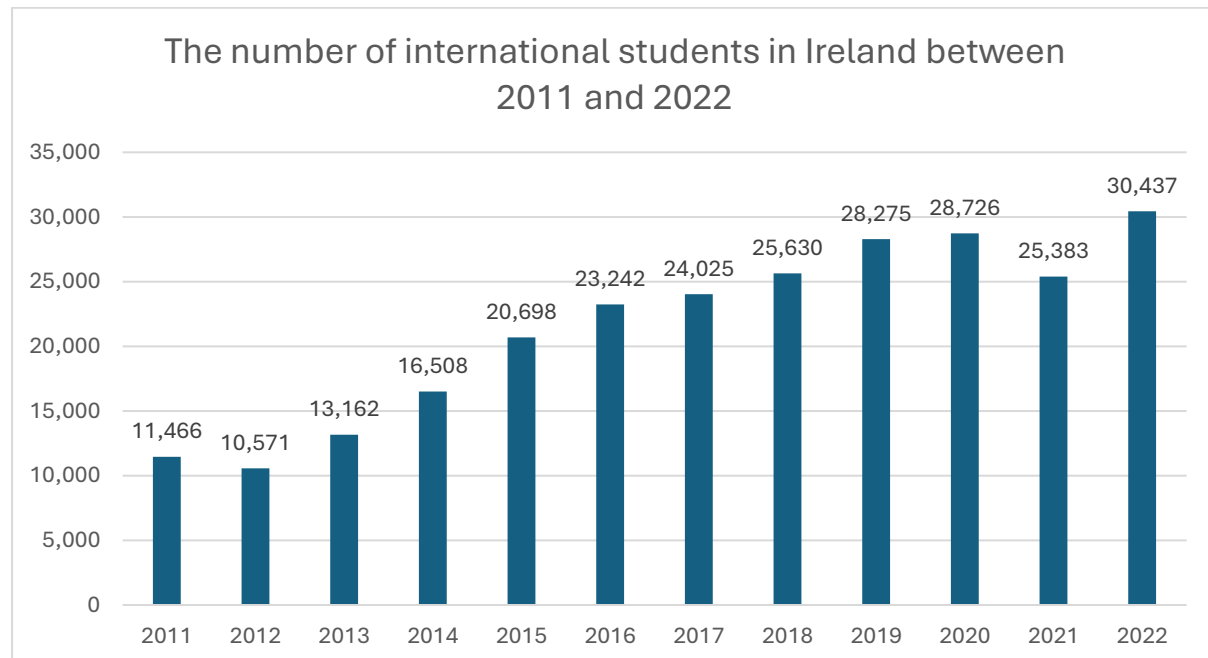
Figure 3: Ireland International Student Statistics 2024 (Erudero, 2024)

Like many countries in the world, international students in Ireland are allowed to work part-time after their college hours to earn some extra pocket money, which acts as a perfect cherry on the cake. The freedom to work part-time in Ireland for international students is

seemly one of the main forces that drive them to come and study in this country. There are 40% of foreign students who tend to have part-time jobs in Ireland while pursuing their studies (Team Leverage Edu, 2023).

According to Department of Education and Skills (2016), from 2014 to 2015, revenue from international students contributed significantly to the Irish economy with an impressive figure of 1.58 billion euros. Besides, international students enliven the Irish higher education system and contribute crucially to Irish society, economy, and research. Also, they make a remarkable contribution to the labour market in Ireland. It is clear that foreign students can bring many far-reaching benefits to Ireland.

Although Ireland is an English-speaking country, this is only one of many major reasons why foreign students choose to study here (Clarke et al., 2018). The Higher Education Authority (HEA) and Enterprise Ireland realized that the crucial determinant in attracting international students coming to Ireland is the overall student experience. Furthermore, satisfaction levels among foreign students in Ireland were mostly affected by the students' experience of the education institution where they are studying (Finn and Darmody, 2017).

To maintain an international reputation as an ideal study destination and attract more international students, Ireland needs to implement diverse measures and policies to ensure international students' quality study environment and good academic performance during their time in this country (Sarah and Christina, 2019). Thus, it is essential to have more research about improving academic experiences of international students in Ireland.

2.5 Gap in the existing literature

While searching the existing literature on factors on general students' academic performance and analysing different areas, there is still a lack exploring international students. Foreign students are driven to study overseas with the purpose of pursing degrees from universities abroad, broadening their knowledge and soft skills (Wilken & Dahlberg, 2017), and receiving an education that is not obtained in their home country or qualifications to acquire employment or permanent migration (Marcu, 2015). Even though the literature in terms of these dynamics is abundant, there is little evidence about their academic experience (Connelly & Merola, 2019; Wu et al., 2015). Additionally, while the number of foreign students in Ireland has been significantly growing (Maura O'Shea, 2023), there have been little studies about issues of foreign students within the Irish context. It can be said that this is a big gap for the present research to fill.

Moreover, there are some studies that only focus on analysing the influence of one factor affecting students' academic performance, for example, the study "Impact of Part Time

Work on the Academic Performance of International Students" conducted by Ali (2017), "Part-Time Working Opportunities and the Impact on Students' Academic Achievement" made by Azis and Yusanti (2021). Analysing one factor may not ensure the holistic outlook of the problem since there may be more other determinants that significantly influence students' academic performance. Therefore, it is essential to have further research that provide a comprehensive analysis of more factors that impact foreign students' academic performance.

Another study is "Key Factors Influencing Academic Performance of International Students' in UK Universities: A Preliminary Investigation" conducted by Sunday and Henry (2015). Although this study evaluated some main factors affecting international students' academic performance, it only focused on the international students at the University of B, which is just one of many universities in the UK. Future research, hence, should attempt to conduct a comparative study across different education institutions to ascertain any local effects of important factors.

2.6 Conceptual framework

Conceptual framework refers to a narrative or graphic representation of the research being embarked on. This model encompasses the dependent variable, the independent variable, and sometimes the intervening or control variable coupled with assumed relationships between variables (Miles et al., 2014). Also, it describes the importance of the research being conducted and the appropriateness/relevance of the ways of completing the research (Ravitch & Riggan, 2017). Merriam and Tisdell (2016) highlight that the framework is of paramount importance in identifying the study problem, relevant research questions, the suitable methodologies as well as discussions. Based on the literature, the author builds a conceptual framework which describes key determinants that influence international students' academic performance in Irish higher education institutions. The majority of mentioned studies use the quantitative method to analyse, which is significantly influential to the author's choice of research method.

```
Culture shock

Language
barriers

Academic issues          Academic performance of
                         international students in
Part-time work           Irish higher education
                         institutions

Stress level
```
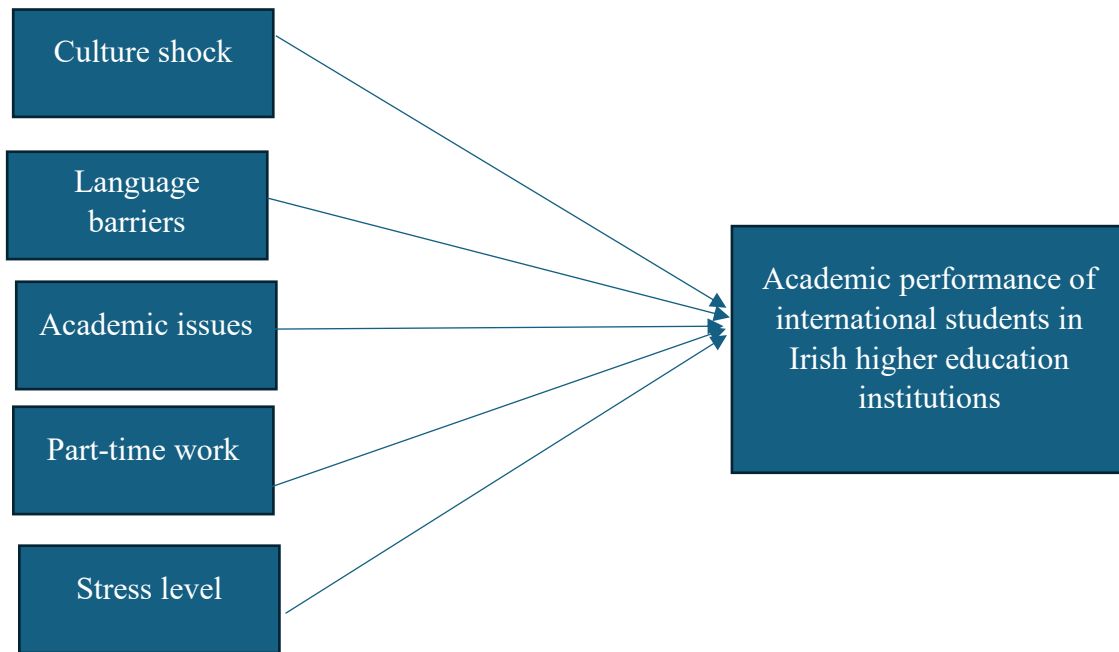
Quantitative method - Questionnaire

Figure 4: The conceptual framework of the current study (Source: Self-created)

In this framework, culture shock, language barrier, academic problems, part-time work, and stress level serve as independent variables. Meanwhile, the dependent variable is academic performance of international students in Irish higher education institutions. The arrows depict the linkages between independent variables and dependent variable. This model represents understanding about key determinants that impact the academic performance of foreign students in Irish higher education institutions.

CHAPTER 3: RESEARCH QUESTION

3.1 Research aim

The study's aim is to offer an insight into determinants that impact the academic performance of foreign students in Ireland. Furthermore, the study also seeks to propose several recommendations for Irish education institutions and policy makers to provide greater support to foreign students to enhance their academic performance.

3.2 Research questions

Exploring research questions and refining them are important in any research undertakings (Khoo, 2005). According to Imed (2024), the question that a research project tries to answer is defined a research question which refers to a problem. In addition, after the data analysis and interpretation, it is answered in the conclusion of that research. There are two questions identified in the current study including:

● What are the key factors that impact international students' academic performance?

● What are the critical factors that impact international students' academic performance within the Irish context?

3.3 Research objectives

According to Khoo (2005), research objectives should be concise and reflect the research questions that are being asked. Each research question and research objective will require distinct methodology (Glasziou et al., 2004). The research objectives in this study will be grounded on the research questions to focus on the following issues:

● To identify the factors that impact the academic performance of international students based on the literature review

● To discover the factors that impact the academic performance of international students within the Irish context

● To propose some recommendations for Irish education institutions and policy makers to provide greater support to foreign students to improve their academic performance.

3.4 Research hypothesis

The current study builds five hypotheses, including H1, H2, H3, H4, and H5 based on the literature.

H1: Culture shock impacts international students' academic performance in Ireland.

Carroll and Ryan (2005) observe that struggling to adapt to a new environment with different cultures and customs can detrimentally impact the academic performance of foreign students when studying in another country.

H2: Language barriers impact international students' academic performance in Ireland.

Andrade (2006) and Smith & Khawaja (2011) emphasize the special importance of foreign language and communication skills as well as the transition to the host culture for international students' successful academic.

H3: Academic adjustment issues impact foreign students' academic performance in Ireland as well.

According Caroll (2008), despite having good academic performance in their home country, some foreign students feel a sense of depression and stress due to being unable to keep their grades when studying in a foreign country.

H4: Part-time work impacts on the academic performance of international students in Ireland.

Tetteh and Attiogbe (2019) state that combining academics with work is a bad idea because students will not have ample time to concentrate on studying, which can negatively affect their academic performance. Furthermore, it also makes it difficult for students to find suitable study time. Tetteh and Attiogbe (2019) also emphasize that students do not spend much time thinking deeply about their lectures when they are too busy working part-time.

H5: Stress level impacts international students' academic achievement in Ireland

The OECD survey reports that anxiety about coursework and examinations causes a detrimental impact on student performance in science, math and reading. The survey highlights that the highest-achieving girls reported that fear of making mistakes often disrupted their test results (OECD, 2015). As per saying by Bernal-Morales et al. (2015), not only can symptoms of depression and stress impair the overall well-being but also adversely affect academic performance.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

As per saying by Melnikovas (2018), this section plays a critical role in each study because it helps guarantee the consistency between chosen data collection method, strategies coupled with underlying philosophy. He highlights that it depicts the way how a study is undertaken. It encompasses philosophical underpinnings which forms the insight of the research questions, research approach, and research methods. This chapter will focus on describing research philosophy, methodological choice, data collection method along with data analysis method based on the model "research onion" by Saunders et al. (2016).

4.2 Research philosophy

Emphasizing the basic techniques of the first study is essential in addressing the issue regarding future research's scientific basis (Nweke and Orji, 2009). Given that traditional research methods are based on specific principles of philosophical theory, which then require appropriate research strategies (Saunders et al., 2016).

Regarding *Positivism*, Melnikovas (2018) emphasizes that this research philosophy assumes the capacity to forecast and regulate the future. They find the frequency of events based on cause-and-effect relationships and make precise calculations of future events by extrapolation. Collins (2010) states that positivism philosophy depends on quantifiable observations that result in statistical analyses and knowledge derived from human experience. Studies with a positivist paradigm consider the world as external and objective, based entirely on reality (Wilson, 2010). It is noted that positivist research commonly applies deductive methods (Crowther and Lancaster, 2008).

Interpretivism is the opposite philosophy of positivism (Melnikovas, 2018). Interpretivism philosophy suggests that it is impossible to control or predict the future due to its unpredictable nature including as a series of random events. Myers (2008) argues that interpretivism philosophy privileges qualitative analysis over quantitative analysis. Furthermore, interpretivism studies tend to use a variety of methods to examine different perspectives of a matter. (Saunders and Thornhill, 2012).

Apart from the above research philosophies, there is *Critical Realism* that presumes future flexibility (Melnikovas, 2018). According to Novikov et al. (2013), studies with the critical realism paradigm focus on the real world's sensation and image that are seemly deceptive because they commonly do not describe the real world.

For this study, the author chooses positivism philosophy due to the combination of quantitative data and practical evidence. It is based on the collection of data through the questionnaire. It will help the study to examine the facts and data related to international students in Ireland. This philosophy points directly to the concept of objectivism when researchers can demonstrate their cognition to evaluate reality (Žukauskas et al., 2018). With the use of this research philosophy, the author will be able to collect data and examine it with an objective attitude. Grounded on quantifiable observations through the results of survey, positivism can lead to statistical evaluations (Collins, 2010). This helps guarantee conclusions based data and mitigate opinion bias. Additionally, the research philosophy of positivism can enable the study to construct and test hypotheses, establish cause and effect relationships, and predict results. This plays a vital role in comprehending the correlation between key factors and foreign students' academic performance in Ireland.

4.3 Research approach

Saunders et al. (2016) state that research approach is divided into three major types, including deductive, inductive, and abductive approach.

Regarding *deductive approach*, researchers shape hypotheses based on existing literature, then selecting an appropriate research method to reexamine them (Wilson, 2010). Studies using deductive approach follow the stages, including inferring hypothesis, formulating hypotheses, testing hypotheses, examining the outcome, and modifying theory (John, 2024).

Contrary to the deductive approach, the *inductive method* starts with observing and then proposing theories as a result of those observations at the end of the research process (Goddard and Melville, 2004). According to John (2024), this approach does not prevent researchers from using prior theory. It aims to create meaning from the collected data set to examine relationships for theory building.

In terms of *abductive approach*, it is designed to address the constraints of the above two methods. It is noted that deductive approach lacks clarity about how to select theories to test through the formulation of hypotheses (John, 2024). Meanwhile, inductive approach is criticized because there is no necessary amount of empirical data that would allow the construction of a theory (Saunders, Lewis, and Thornhill, 2012).

Before deciding the deductive method for this research project, other approaches are also considered. The critical restrictions, nevertheless, cannot be adopted to this study owing to inductive and abductive methods' demerits. Finally, the deductive approach is applied in the current study because of its relative advantages. It can provide a clear and well-defined structure for the research with five stages, including deducing hypothesis, establishing

hypotheses, testing hypotheses, examining the outcome, and modifying theory (John, 2024). According to John (2024), testing and proving research hypotheses through the perspective of deductive method will facilitate making logical inferences based on data. This approach also supports the validation and refinement of existing literature (Hyde, 2000). A retrospective review of current research is used to provide specific perspectives on phenomena related to some factors that impact international students' academic performance in Ireland. Furthermore, the initiation of a formalized statistical intervention aimed at hypothesis testing is consistent with a deductive research approach. Moreover, findings from deductive research are commonly generated from distinct populations and contexts, which can bring broad adoption and comparative analysis (Creswell, 2014). Deductive research combined with quantitative methods aims to test hypotheses and then provide findings (Zalaghi and Khazaei, 2016). Precisely the relationship between key factors, including culture shock, language barriers, academic adjustment issues, part-time work, and stress level and international students' academic performance in Ireland is identified through aspects of deductive analysis in this study.

4.4 Methodological choice

Research options involve the use of quantitative and qualitative research methods, simple or complex combinations of both, or the use of single methods (Saunders et al., 2016). While quantitative research methods describes and measures appearances on the basis of numbers and calculations, qualitative methods are often explanatory in nature and are primarily concerned with obtaining insights of the underlying motivations (John, 2024).

Mono method is the use of gathering quantitative data or qualitative data. To acquire various goals and compensate for the drawbacks of using a single method, researchers tend to use the mixed method, which is the combination of the two methods. Multi-method choice involves the use of both qualitative and quantitative methods. Notably, despite that the research is grounded on them, the other is only complementary (Melnikovas, 2018).

For this study, the author only uses Internet-based survey for the choice of the mono-quantitative method. The collection of digital data through the online survey is what led to the selection of the single-quantitative method. Since the study seeks to analyse the extent of influence of factors on international students' academic performance in Ireland using numerical data, the adoption of mono-quantitative method is appropriate for it. Since this method involves large sample size, findings of the study are often easy to compare and generalize (John, 2024). Therefore, the findings of the study can be applied to a larger scale of international students within the Irish context. Also, the quantitative method can help examine the relationship among

variables measured numerically by the use of statistical techniques (John, 2024), for example, the relationship between stress level and the academic performance of international students in Irish higher education institutions. Furthermore, the vitality of single-quantitative designs in research is concerning to provide reliable information about factors that impact international students' academic performance in Ireland adopted a survey strategy.

The author opts the quantitative survey research strategy regarding gathering numeric information for the study. The research is able to evaluate the impact of some key factors affecting the academic performance of international students in Irish higher education institutions by virtue of quantitative information. Substantial benefits of survey research strategy are offered by Saunders, Lewis, and Thornhill (2019) about identifying further findings grounded on research objectives. It is important to introduce a quantitative survey strategy in this research to identify various issues related to foreign students' academic performance in Irish higher education institutions.

4.5 Data collection methods

In this study, the data was gathered through one survey method. Due to the capability to collect large size of information in a short time (Denscombe, 2010), the author used questionnaires to collect data. Accordingly, this method has some advantages for the research. Members of the sample group are nameless. Besides, it can generate large amount of data compared to other methods, such as interviews.

The questionnaire for this study was designed on Google form. It encompasses 41 questions with three main types of questions, including multiple-choice questions, Yes/No questions, scaling questions along with short answer questions. For scaling questions in the research, the author chose the range of values from 1 (strongly disagree) to 5 (strongly disagree). It is noted that the questionnaire is developed based on the Literature review chapter. More specifically, there are 5 survey question groups based on five factors that impacts the academic performance of international students in Irish higher education institutions as follow:

- Question 14, 15,16,17,18, and 19 are related to the aspect of culture shock
- Question 20, 21, 22, 23, 24, 25, and 26 concern the aspect of language barriers
- Question 27, 28, 29, 30, 31, 32, and 33 pertain the aspect of academic adjustments
- Question 34, 35, and 36 are associated with the aspect of part-time work
- Question 37, 38, and 39 are related to the aspect of stress level

The survey was sent to groups of student email of National College of Ireland via Outlook consists of about 1200 international students (Source: self-created). It can be an

abundant source of data regarding international students. According to the website of National College of Ireland, there are about international students studying here. Besides, the author also took advantage of the social network to contact some friends who have been living and studying in Ireland. More specifically, the survey was sent to a chat group on Facebook including 98 Vietnamese students who have been studying in Irish higher education institutions.

Along with these efforts, the author requested my friends to share the survey and introduce it to someone they know who may be interested in the survey as well as fit the sample selection criteria.

4.6 Data analysis

The author uses descriptive and inferential analytical methods in this study. Some basic statistical methods including descriptive statistics tables, charts, means, and percentages are used to summarise the survey findings. Afterwards, the author depicts the findings and make deductions based on the collected data. In contrast, the author applies inferential statistical tools to test research hypotheses. More specifically, the author applies the multiple linear regression method to confirm if independent variables, including culture shock, language barrier, academic issues, part-time work, and stress level, influence the academic performance served as the dependent variable. According to Pallant (2020), to test hypotheses through the linear regression model, one of the methods applied is t-statistic and p-value test of each quantitative coefficient. If the p value of these hypotheses is smaller than 0.05, the null hypothesis is denied, which represents sufficient evidence to say that alternative hypothesis is true. Otherwise, the null hypothesis is accepted.

To collate data accurately and analyse data efficiently, the author used the IBM SPSS Statistics software version 25 to conduct all statistical tests. According to John (2024), SPSS has broad coverage of statistical analysis, formulas, and procedures. Additionally, SPSS users can easily import data files through other programs, such as Excel.

4.7 Time horizon

According to Melnikovas (2008), time horizons commonly involve a time frame be studied or chronological horizon of varying width. This is classified into two types, including cross-sectional time horizon and longitudinal time horizon. A cross-sectional time horizon is applied to this study as for a survey short time is required. Cross-period mainly refers to the gathering and analysis of data for a certain period (Rindfleisch et al., 2008). In addition, because of the limited sample size, a cross-sectional time range is given due to helping collect more relevant information to foreign students' academic performance influenced by some factors.

4.8 Ethical Consideration

Ethical considerations can be considered one of the most critical parts which contributes to the quality of a study (John, 2024). The author has followed some principles in terms of ethical considerations (Bryman and Bell, 2007). First, the author has applied data security and privacy principles during the research process. More specifically, the author had disabled the option "Requires Collect email addresses" when respondents answered the survey. The questionnaire does not request respondents' personal information such as name, contact details or IP address, to ensure that the identity of them is anonymous.

In addition, the author ensures the data confidentiality by storing the database on the author's Google Drive account, thereby, no other party can extract the data.

Ultimately, the data are solely used for research purposes and then will be removed from the author's storage when the study ends.

CHAPTER 5: DATA ANALYSIS AND FINDINGS

5.1 Introduction

This chapter focuses on the interpretation of data from the questionnaire and data analysis. After the collation, the data were investigated based on descriptive statistics tables from using IBM SPSS Statistics software.

The key findings in the study show that four variables of the academic performance, including language barriers, academic issues, part-time work, and stress level, negatively impact it. Of all such correlations between critical variables and academic performance, stress level has the strongest correlation with the academic performance of international students in Irish higher educations. On the other hand, culture shock did not correlate with their academic performance. In this chapter, data gathering will be presented and linked to the literature review.

5.2 Response rate

From the collation of the data, the survey collected 152 responses from a total of 1298 contacts. However, 150 responses are valid. One response is invalid because it was done by an Irish student. Another response is not valid because the participant is studying at an Irish high school.

5.3 Descriptive Analysis

The topics covered in the questions vary from general issues like culture shock, language barriers, academic issues, part-time work, and stress level. The academic performance scale indicates the extent of agreement from 1 to 5, with 1 being strongly disagree and vice versa.

The mean values for each question typically range from 3.01 to 3.97, indicating that respondents moderately agree with factors affecting the academic performance.

5.3.1 Culture shock

Variable	Criteria	N	Minimum	Maximum	Mean	St. Deviation
CS1	*Question 14*: The feelings of homesickness and cultural adjustment have affected my ability to complete assignments on time	150	1	5	3.34	0.975
CS2	*Question 15*: I have felt isolated when working with my	150	1	5	3.23	0.913

		150	1	5		
	classmates in group activities due to cultural differences					
CS3	*Question 16*: I have felt unsupported by teachers and academic advisors in dealing with cultural adjustment issues	150	1	5	3.36	0.957
CS4	*Question 17*: I have found it difficult to adapt to the teaching style of the lecturers at my university	150	1	5	3.45	0.959
CS5	*Question 18*: Cultural misunderstandings have impacted my relationships with lecturers and classmates	150	1	5	3.39	0.982
CS6	*Question 19*: I have felt stressed due to cultural differences in the academic environment	150	1	5	3.46	0.924

Table 2: Descriptive Statistics of culture shock (Source: Self-created)

According to the statistics, the means range from 3.23 to 3.46, indicating that survey participants moderately agreed with 6 issues of the factor "culture shock". Overall, respondents mostly encountered problems related to culture shock mentioned in the survey, such as getting homesick, feeling isolated when participating in group work activities, feeling unsupported by teachers, finding it difficult to adapt to the teaching style of the lecturers, feeling stressed due to cultural differences, and cultural misunderstanding. Some previous literature emphasizes such issues. Prior literature also mentions these aspects of culture shock in academic environment. Ayyoub et al. (2019) observe that international students experiencing culture shock are prone to feel homesick, isolated, and anxious. Besides, foreign students may find that teachers are not often as supportive as expected because teachers have different cultural understandings of the teacher and student relationship (Mustafa, 2022). According to Schein (2015), unfamiliar teaching styles may make international students feel nervous and uncomfortable, which leads to reduced class engagement and a passive learning attitude. Eventually, this lack of class participation caused by culture shock can impede their understanding of lectures and adversely affect their academic performance.

5.3.2 Language barriers

Variable	Criteria	N	Minimum	Maximum	Mean	Std. Deviation
LB1	*Question 20*: Some lecturers' accents have made it difficult for me to understand the lecture	150	1	5	3.17	0.737
LB2	*Question 21*: I could not understand clearly some of the expressions and idioms lecturers used	150	1	5	3.09	0.789
LB3	*Question 22*: I could not keep up with the pace of the discussion as well as understand questions when having group activities	150	1	5	3.37	0.959
LB4	*Question 23*: I have found it challenging to express my ideas in English in front of the class	150	1	5	3.39	0.911
LB5	*Question 24*: Some classmates could not understand exactly what I was saying due to my incorrect pronunciation	150	1	5	3.45	0.799
LB6	*Question 25*: I have felt insecure when speaking in English	150	1	5	3.39	0.940
LB7	*Question 26*: I think my current level of English proficiency is inadequate for my academic success in Ireland	150	1	5	3.40	0.948

Table 3: Descriptive Statistics of language barriers (Source: Self-created)

The statistics show that the mean score of the observed variables of language barriers ranges from 3.09 to 3.45. In which, incorrect pronunciation making classmates confuse and inadequate English proficiency for academic success are the two issues that have the highest mean score, with scores of 3.45 and 3.40, respectively. In opposition, not understanding clearly some of the expressions and idioms lecturers used has the lowest mean value (3.09).

In general, respondents tend to agree with most of issues regarding language barriers. According to Cabanillas (2023), language barriers can exacerbate the problem as international students have difficulty grasping every word the professor says. Cabanillas (2023) observes that language barriers can trigger feelings of apprehension, discomfort, and hardship keeping up with the pace of the discussion as well as understanding questions. They find it strenuous to express their message and they sometimes feel like they are talking "Foolishly" when communicating with their lecturers and peers. Lin & Yi (1997) and Fatima (2001) state that language barriers are a major challenge that foreign students encounter regarding their academic performance. Many international students have difficulty communicating with their teachers, peers, and locals because of poor vocabulary and lack of information about the host country's social norms (Sawir et al., 2012). According to Brown and Holloway (2008) that language barriers caused students participating in their study to experience stress and make it difficult to achieve better academic performance.

5.3.3 Academic issues

Variable	Criteria	N	Minimum	Maximum	Mean	Std. Deviation
AI1	*Question 27*: I have found it difficult to understand the grading system at my institution well	150	1	5	3.85	0.754
AI2	*Question 28*: When I first enrolled in Ireland, I found it difficult to clearly understand the requirements of assignments and exams	150	1	5	3.75	0.723
AI3	*Question 29*: I have felt uncomfortable with the use of technology and online resources for my studies	150	1	5	3.66	0.731

AI4	*Question 30*: I have found it challenging to manage the academic workload at my institution	150	1	5	3.63	0.878
AI5	*Question 31*: I have found it difficult to do assignments and exams well	150	1	5	3.63	0.671
AI6	*Question 32*: I could not adapt to the academic expectations and standards of my institution well	150	1	5	3.81	0.576
AI7	*Question 33*: I could not perform academically well as I could in my home country	150	1	5	3.97	0.768

Table 4: Descriptive Statistics of academic adjustment issues (Source: Self-created)

Based on the statistic, it is seen that the value of mean of observed variables academic adjustment issues ranges from 3.63 to 3.97. The majority of factors regarding academic performance issues have high mean scores. In which, not performing academically well as in the home country and having difficulties in understanding grading system at the institution have the highest mean scores, with scores of 3.97 and 3.85, respectively. Overall, respondents tend to agree with mentioned problems relevant to academic adjustment issues. There are some previous literatures supporting the findings. According to Edward and Ran (2006), most students experience academic stress when studying in a new country with a different educational system, such as study skills, group assignments, examination, and plagiarism. Besides, they may experience difficulties related to understanding assessment strategies and grading systems (Grant, 2010). Kelly et al. (2012) indicate that foreign students must meet their learning needs in a completely different educational system, in which many aspects may are distinct from the system they are familiar with. There are various differences in the educational system among countries, including the number of required credits, passing scores, the types of answers required on the exam, the types of coursework, and the style of classroom interaction. These researchers present evidence that international students tend to plagiarize, not intentionally but as teachers assume they have been taught proper referencing in their home country.

5.3.4 Part-time work

Variable	Criteria	N	Minimum	Maximum	Mean	Std. Deviation
PW1	*Question 34*: I have missed classes to meet part-time work commitments	150	1	5	3.08	0.863
PW2	*Question 35*: I have not had enough time to finish my assignments and review my knowledge after each class because of my part-time work	150	1	5	3.07	0.828
PW3	*Question 36*: I have missed deadlines for assignments in the last semester	150	1	5	3.01	0.882

Table 5: Descriptive Statistics of part-time work (Source: Self-created)

According to the descriptive statistics table, the mean value of PW1, PW2, and PW3 ranges from 3.01 to 3.08, approximately equal to 3, implying survey participants had the neutral opinion on the issues concerning part-time work, such as missing classes to meet part-time work commitments, not having enough time to finish their assignments and review their knowledge after each class because of part-time work, and missing the deadlines for assignments. Indeed, the findings have been reflected in previous research. Oi I and Morrison (2005) discover that numerous students tend to find it challenging to enhance critical skills in education since part-time work has a negative impact on many aspects of students' learning experience and academic performance. Humphrey (2006) argues that students who work part-time were less socially engaged and were less able to do coursework owing to not having enough free time. In addition, Azis and Yusanti (2021) also state that poor time management between study and work of students makes it difficult for them to enter college, difficult to study, difficult to do group exercises, and feel tired leading to dropping out of school. Staff and colleagues (2010) in their study observe that students working part-time did not spend ample time on extracurricular activities after school, such as assignments, reviewing knowledge or preparing for new lessons and exams. Other studies also emphasize that when students have more work hours per week, they are more likely to miss lectures, lack class participations, and

spend less time to study, which negatively affects their academic performance (Carnevale, 2019 and Carney et al., 2005).

5.3.5 Stress level

Variable	Criteria	N	Minimum	Maximum	Mean	Std. Deviation
SL1	*Question 37*: I have felt very stressed while pursuing my academic goals	150	1	5	3.68	0.992
SL2	*Question 38*: I have felt overwhelmed handling my personal problems when studying in Ireland	150	1	5	3.59	0.970
SL3	*Question 39*: I have felt very stressed when I could not understand what the lecturer was teaching because of a lack of attention in class	150	1	5	3.63	0.886

Table 6: Descriptive Statistics of stress level (Source: Self-created)

According to statistics, the mean value of SL1, SL2, and SL3 is above 3.5, indicating that participants in the survey tend to agree with the viewpoints "I have felt very stressed while pursuing my academic goals", "I have felt overwhelmed handling my personal problems when studying in Ireland", and "I have felt very stressed when I could not understand what the lecturer was teaching because of a lack of attention in class". Overall, the results show that international students in the survey have faced all mentioned issues related to stress. Prior studies also reflect to the findings. Previous research has suggested that college students experience high stress level and therefore have lower levels of mental well-being (Adlaf et al., 2010 and Stallman, 2010). According to Wilks (2008), academic performance is the combination of learning pressures that exceed an individual's ability to adapt. Extreme school-related stress can reduce students' work readiness and overall academic performance and can lead to increased dropout rates (Ezekiel, 2021). In another study, Struthers et al. (2000) suggest that university students tend to have feelings of stress when pursuing their academic goals, negatively affecting their academic performance. Moreover, the stress related to culture shock can exhibit in a variety of physical disorders with several symptoms, such as headaches and

sleep disruption (Qun et al., 2018). Consequently, physical stress can further negatively impact students' academic and social abilities. Moreover, students also feel stressed when they cannot understand what the lecturer teaches because they do not attend class fully. This result alight with a study made by Gomathi et al., (2012) and Essel & Owusu (2017) that identified several academic factors like the reduced ability to grasp lectures, increased assignments, long study hours, lower grades, and exams as a source of stress among students, which lead to a negative effect on their academic performance.

5.4 Correlation

5.4.1 Reliability

Some studies by Hair et al. (2009) and Nunnally (1978) suggest that the Cronbach's Alpha reliability is equal to 0.7 or greater, the scale can ensure reliability.

According to the following Reliability Statistics table, the Cronbach alpha coefficient of observed variables for this study ranges from 0.827 to 0.9, suggesting that this scale has good internal consistency reliability with this sample. Strikingly, the value of the variable "Stress level" is the highest, indicating very good internal consistency trustworthiness.

	Cronbach's Alpha	N of Items
Culture shock	0.827	6
Language barriers	0.893	6
Academic adjustment issues	0.807	7
Part-time work	0.844	3
Stress level	0.9	3

Table 7: Reliability Statistics (Source: self-created)

5.4.2 Correlation

For the present research, the author uses Pearson correlation coefficient along with multiple regression coefficient to have a more comprehensive view regarding the relationship among variables. The former is used to explore the initial linkage between a dependent variable and an independent variable without the control of other variables, while the latter provides more thorough understanding of the impact of each independent variable on the dependent variable with the control of other independent variables. Particularly, the multiple regression model is used to test hypotheses mentioned in the Research question chapter.

5.4.2.1 Pearson correlation coefficient

According to Pallant (2020), Pearson correlation coefficient (r) can only range from –1 to +1. If Pearson correlation coefficient (r) has negative value, it means as one variable rises, the other fall.

To describe the correlation between the five key factors and academic performance, the author uses Table Pearson Correlation Sig (2-tailed). A matrix is used to describe the linkage between culture shock (CS), language barriers (LB), academic adjustment issues (AI), part-time work (PW), stress level (SL), and academic performance (AP).

		LB	AI	PW	SL	CS	AP
LB	Pearson Correlation	1	.302**	.303**	.334**	.208*	-.632**
	Sig. (2-tailed)		0.000	0.000	0.000	0.011	0.000
	N	150	150	150	150	150	150
AI	Pearson Correlation	.302**	1	0.117	0.149	.196*	-.460**
	Sig. (2-tailed)	0.000		0.155	0.070	0.016	0.000
	N	150	150	150	150	150	150
PW	Pearson Correlation	.303**	0.117	1	.313**	.238**	-.548**
	Sig. (2-tailed)	0.000	0.155		0.000	0.003	0.000
	N	150	150	150	150	150	150
SL	Pearson Correlation	.334**	0.149	.313**	1	.201*	-.631**
	Sig. (2-tailed)	0.000	0.070	0.000		0.014	0.000
	N	150	150	150	150	150	150
CS	Pearson Correlation	.208*	.196*	.238**	.201*	1	-.318**
	Sig. (2-tailed)	0.011	0.016	0.003	0.014		0.000
	N	150	150	150	150	150	150
AP	Pearson Correlation	-.632**	-.460**	-.548**	-.631**	-.318**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	150	150	150	150	150	150

Table 8: Pearson Correlation Sig (2-tailed) (Source: self-created)

The correlation coefficients for the variables in the current study are as follows:

LB and AP: Pearson correlation of -0.632

AI and AP: Pearson correlation of -0.460

PW and AP: Pearson correlation of -0.548

SL and AP: Pearson correlation of -0.631

CS and AP: Pearson correlation of -0.318

It is notably seen that all five correlations are negative, suggesting that when language barriers (LB), academic adjustment issues (AI), stress level (SL), culture shock (CS) as well as work part-time while studying (PW) increase, the academic performance tends to decrease.

Furthermore, the correlation coefficients suggest that the strength of the relationship between language barriers and academic performance is the strongest (-0.632), followed by stress level and academic performance at -0.631 and part-time work and academic performance at -0.548, and then academic adjustment issues and academic performance at -0.460. It is worth noting that the strength of the relationship between culture shock and academic performance is the weakest (-0.318). Based on the survey in the present research, most international students in Irish higher education institutions agree with these key factors that impact on their academic performance. Nonetheless, there are still differences among respondents in some respects. Indeed, the negative correlation between culture shock, language barriers, academic adjustment issues, part-time work, and stress level for academic performance is predictable through the overall questionnaire and prior relevant literature as mentioned.

The linkage between academic performance and culture shock has been intensively examined in some previous studies. According to Ayyoub et al. (2019) and Furnham (2010), foreign students might face various academic problems due to cultural differences, which affects their academic performance. Since lecturers have distinct teaching styles and cultural understanding regarding the relationship between teachers and students, international students may feel like their teachers are not often as supportive as expected (Mustafa, 2022). A study by Schein (2015) underscores international students' lack of confidence when participating in some classroom activities due to culture shock. Unfamiliar teaching styles and distinct classroom dynamics may make them feel nervous and uncomfortable, which leads to decreased class participation and reluctance to express their ideas in class as well as a passive learning attitude. Gradually, this lack of class engagement can make their difficult to understand lectures and adversely affect their academic performance.

In addition, there are some previous research that have investigated the impact of language barriers on academic performance. According to Lin & Yi (1997) and Fatima (2001), language barriers are a major challenge that foreign students face, negatively affecting their academic performance. Due to not having poor vocabulary, many international students struggle to communicate with their teachers, peers, and local people. Also, they must work hard to meet their academic writing skills as required (Sawir et al., 2012). Brown and Holloway

(2008) find that language competency caused students participating in the study to experience stress owing to language barriers in their academic performance. While language seemly plays a key role in determining international students' academic success in universities, it is considered as a major acculturation difficulty for most of them (Wilton and Constantine, 2003)

Some previous literatures have also reflected the relationship between academic adjustment issues and academic performance. Most students experience academic issues when studying in a new country with a different educational system, for example, the relationship between students and teachers, study skills, group assignments and plagiarism (Edward and Ran, 2006). Besides, they may experience difficulties related to understanding assessment strategies and grading systems (Grant, 2010). According to Carroll (2008), most countries choose the end-of-year exams as the main form of assessment for students is that most international students are accustomed to taking. Meanwhile, in some host countries, the assessment is implemented through different mid-term exams, end-of-year exams, and in-class activities. Also, some may not be acquainted with learning tasks, for example, group assignments, presentations, essays, and individual reflections. Furthermore, despite having good academic results in their home country, some foreign students feel a sense of depression and stress due to being unable to keep their grades when studying in a foreign country. As a result, some foreign students are unable to do well on exams and perform well in class participation activities, leading to the worse academic performance. Arthur (2004) also emphasizes that previous academic success of some students gained in their home country's curriculum can be disrupted by difficulties in adapting to a new academic system. These hardships can create additional pressure for international students to redefine their personal abilities.

In terms of the correlation between part-time work and academic performance, some researchers discover that numerous students have found it tough to manage time effectively to complete academic work when both attending full-time college education and working part-time (Tessema et al., 2014 and Humphrey, 2006). The number of students working part-time and the number of their work hours have seen a rapid growth (Logan et al., 2016). This could lead to the fact that students spend less time studying, which can have a detrimental impact on their overall academic performance. Additionally, Oi I and Morrison (2005) in their study find that numerous students tend to have difficulty enhancing critical skills in education since part-time work has a negative effect on many aspects of students' learning experience and academic performance. Humphrey (2006) argues that students who work part-time were less socially engaged and were less able to do coursework owing to not having enough free time. When

students have more work hours per week, they are more likely to miss lectures, lack class participations, and spend less time to study, which negatively affects their academic performance (Carnevale, 2019 and Carney et al., 2005).

Stress level is one of the significant factors affecting academic performance that has been investigated in some prior studies. As per saying by Haynes (2002), students commonly face different types of stress, such as academic stress, which intensively influences their

Darolia (2014) and Hall (2010) also emphasize the deleterious effects of part-time work while studying on students' academic performance concerning end-to-year grades and degree results. Most previous studies show that time management is the most critical factor in the practice of both studying and working (Hall, 2010). Not having a balance between study and work can adversely affect the academic results of many students.

academic performance. Cruwys et al. (2015) also highlight the detrimental effects of stress level on students, especially when they have to complete many assignments or prepare for exams. According to Qun et al. (2018), the stress related to culture shock can exhibit in a variety of physical disorders with several symptoms, such as headaches and sleep disruption, which can trigger a profound impact on students' academic and social abilities.

5.4.2.2 Multiple linear regression model

In this section, the author uses multiple regression to investigate the relationship between independent variables and one dependent variable with the aim to test five mentioned hypotheses. Multiple regression is used to depict how well a group of variables predicts a certain result (Pallant, 2020).

*Model Summary table

The R^2 value represents the percentage of variation in the dependent variable that is explained by the independent variable in the model. The fluctuation of this value is from 0 to 1. If the value is between 0.5 and 1, the model is good, and if it is smaller than 0.5, it reflects a bad model (Pallant, 2020).

For the current study, it can be seen that the R square in the Model Summary table is 0.742, which means the model explains 74.2% of the variance in the dependent variable (academic performance). The value of 0.742 represents a good model.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.862[a]	0.742	0.733	0.321	2.122

Table 9: Model Summary[b] (Source: Self-created)

* ANOVA Table

In the F test, the sig value of is adopted to check the appropriateness of the regression model. The multiple regression model will fit the data set and can be used when sig value is less than 0.05. The value is commonly found in the table labelled ANOVA (Pallant, 2020).

For this study, the Sig value in the following table is 0.000, which represents that this multiple regression model is suitable for the data set and can be used.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	42.600	5	8.520	82.933	.000b
	Residual	14.793	144	0.103		
	Total	57.393	149			

Table 10: ANOVAᵃ (Source: Self-created)

* Coefficients Table

According to Pallant (2020), the importance of the regression coefficient of every independent variable in the model is grounded on the t-test with hypothesis H0. 0 is the regression coefficient of the independent variable Xi. When Sig is less than 0.05, the hypothesis H0 is rejected, meaning that the regression coefficient of the variable Xi is statistically different from 0, the variable Xi has a correlation with the variable dependent. The hypothesis H0 is accepted when Sig is greater than 0.05, meaning that the variable Xi does not impact the dependent variable.

In the table Coefficients, there are Unstandardized Coefficients (B) and Standardized Coefficients (Beta) (Pallant, 2020).

The Multiple Linear Regression model:

Unstandardized: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n + \epsilon$

Standardized: $Y = \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n + \epsilon$

In there: Y serves as a dependent variable X1, X2, Xn serve as independent variables

β_0 is seen as regression constant (The index indicates what the value of Y would be if there were no Xs)

$\beta_1, \beta_2, \beta_n$ are regression coefficients (This indicator suggests the change in Y caused by X)

ϵ is error (The greater the value is, the more misleading the regression's prediction is compared to reality)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.489	0.230		28.212	0.000		
	LB	-0.285	0.042	-0.328	-6.856	0.000	0.782	1.278
	AI	-0.316	0.054	-0.260	-5.806	0.000	0.889	1.125
	PW	-0.236	0.038	-0.286	-6.170	0.000	0.836	1.196
	SL	-0.274	0.033	-0.383	-8.232	0.000	0.829	1.206
	CS	-0.044	0.037	-0.054	-1.213	**0.227**	0.896	1.116

Table 11: Coefficients[a] (Souce: Self-created)

It is noticeably observed that the Sig value of culture shock is 0.227, greater than 0.05, suggesting this variable does not impact the dependent variable (academic performance). This result is contrary to some existing literature. Typically, a study by Schein (2015) highlights international students' lack of confidence when participating in some classroom activities due to culture shock, which makes them difficult to understand lectures and adversely affect their academic performance.

The rest, including language barriers, academic adjustment issues, part-time work, and stress level have the Sig value of 0, less than 0.05, therefore, they have statistical meaning and also influence the dependent variable (academic performance). Additionally, coefficients of such independent variables have negative signs, which means that they negatively affect the dependent variable.

The unstandardized regression equation is formulated from the regression coefficients as follow:

AP = 6.489-0.316AI-0.285LB-0.274SL-0.236PW+ϵ

In there:

AP serves as the dependent variable

LB, **AI**, **PW**, and **SL** are the independent variables

When academic adjustment issues increase by 1 unit, academic performance of international students in Irish higher education institutions will decrease by 0.316 unit. When language barriers increase by 1 unit, their academic performance will drop by 0.285 unit. The academic performance will decline by 0.274 unit when stress level increases by 1 unit. Finally, when part-time work rises by 1 unit, the academic performance will fall by 0.236.

Based on the Standardized Coefficient value, the influence of the independent variables on the dependent variable (academic performance) from strongest to weakest is in the following order: SL (0.383) > LB (0.328) > PW (0.286) > AI (0.260). Equivalent to:

- The variable **Stress level** impacts academic performance the most.
- Followed by Stress level, the variable **Language barriers** has the second strongest effect on academic performance.
- **Part-time work** has the third strongest effect on academic performance.
- **Academic adjustment issues** variable has the fourth strongest impact on academic performance.

The findings suggest that stress level significantly impacts academic performance, aligning with previous studies by Qun et al. (2018), Cruwys et al. (2015), and Haynes (2002). According to Haynes (2002), students have facing different types of stress which profoundly affect their academic performance. Moreover, stress and fatigue levels will increase when students have to prepare for exams or do assignments, sometimes leading to some negative effects on their scores. (Cruwys et al., 2015). Also, Qun et al. (2018) discover that the stress related to culture shock can exhibit in a variety of physical disorders with several symptoms, such as headaches and sleep disruption, which can cause a detrimental effect on students' academic and social abilities.

In addition to stress level, language barriers can be seemed as a factor that considerably impacts academic performance, which is also reflected in some prior research. Specifically, the results support the discoveries as outlined in studies by Lin & Yi (1997) and Fatima (2001). Accordingly, language barriers are a major challenge that foreign students encounter regarding their academic performance. Due to not having poor vocabulary and enough information about the host country's social norms, many international students have trouble communicating with their teachers, peers, and locals. Also, they must work hard to meet their academic writing skills

as required (Sawir et al., 2012). Brown and Holloway (2008) observe that language competency caused students participating in the study to experience stress owing to language barriers in their academic performance.

The results related to the impact of part-time employment on academic performance are consistent with some studies by Tessema et al. (2014), Humphrey (2006), and Hunt et al. (2004). Accordingly, multiple students might find it hard to manage time effectively to complete academic work when both attending full-time college education and working part-time, which adversely affects their academic performance.

Equivalent to above factors, the relationship between academic adjustment issues and academic performance proved in this study is also reflected in several prior research by Arthur (2004) and Kelly et al. (2012). They also state the challenges of a new curriculum, and a distinct educational system can disrupt previous levels of academic performance of some students achieving in their home country's curriculum and add pressure to redefine personal abilities.

Finally, there is hypothetical conclusion as follow:

H1: "Culture shock impacts international students' academic performance in Ireland" was rejected

H2: "Language barriers impact international students' academic performance in Ireland" was accepted

H3: "Academic adjustment issues impact foreign students' academic performance in Ireland as well" was accepted

H4: "Part-time work impacts on the academic performance of international students in Ireland" was accepted

H5: "Stress level impacts international students' academic achievement in Ireland" was accepted

5.5 Limitations of the research method

The author noticed some drawbacks during the research process. First, the validity and reliability of the findings of this study might be affected by the short duration of the survey and relatively small sample size. Short time frames can constraint the amount of data collected and the capability to trace changes over time. Furthermore, the ability to generalize study outcomes to more notable groups may be limited by small sample sizes. In fact, the sample size in this study is narrowed due to the small number of participants in the survey. Hence, to comprehensively understanding the subject, the mixed-method approach might be the best choice for this study. For instance, extensive interviews should be conducted to provide insights

into challenges that international students encounter when studying in Irish higher education institutions as well as the impact of them on the academic performance. Given that the advantages of interviews include the ability to gather detailed information related to research questions and direct control over the process as well as the chance to elucidate specific problems during the process (John, 2024). Meanwhile, quantitative research techniques can provide a more comprehensive knowledge of trends and patterns from the data, yet they might lack the depth of respondents' personal experiences. Although the mixed-method approach can acquire various objectives and compensate for the limitations of using a single method, they consume more time, resources and expertise than research can handle.

5.6 Summary

This chapter highlighted the interpretation of the data analysis and findings from the survey conducted. Also, the null hypothesis was tested. According to the correlation analysis's findings, there is a linkage between culture shock and academic performance, language barriers and academic performance, academic adjustment issues and academic performance, part-time work and academic performance, and stress level and academic performance, with the Pearson correlation coefficient of -0.318, -0.632, -0.46, -0.548, and -0.631 respectively. Notably, language barriers, part-time work, and stress level have a relatively high relationship with academic performance.

When the null hypothesis was tested, the significance value of four independent variables including language barriers, academic adjustment issues, part-time work, and stress level was less than 0.05. Therefore, the author rejected these null hypotheses and accepted the alternative hypothesis. Culture shock is the only factor that had the significant value was larger than 0.05, thereby, the null hypothesis was accepted. It is noted that the findings and analysis in this chapter have mostly met the research objectives. The study also revealed that academic adjustment issues, language barriers, part-time work, and stress level are further factors that negatively impact on foreign students' academic performance in Irish higher education institutions. Another significant finding revealed here is that stress level has the highest influence on their academic performance.

CHAPTER 6: DISCUSSIONS

6.1 Introduction

The chapter aims to discuss findings in the Data analysis chapter and identify literature advancement and limitations as well as practical implications. Especially, the author discusses the research topic based on data analysis which have examined the correlation among five key factors and academic performance. The finding show that language barriers, academic issues, part-time work, and stress level adversely affect the academic performance of international students in Irish higher education institutions. The developed hypotheses in the introduction chapter have been tested in the data analysis chapter to get deeper insight of the relationship between factors, such as language barriers, academic issues, part-time work, and stress level. This brings values to Irish higher education institutions to increase foreign students' access for good quality education and employment, which can help Ireland attract and retain more international students.

6.2 Literature advancement and theoretical implications

Many previous studies have investigated some factors that impact on general students' academic performance, such as personal variables (gender and age), personal motivation, family variables (parents' level of education). Nonetheless, for research subjects being international students, there is limited research that intensively analyse the impact of various factors on their academic performance, specifically within the Irish context. Indeed, the present study has filled this gap and comprehensively analysed the key challenges faced by foreign students at Irish higher education institutions that affect their academic performance.

In addition, there are some prior studies that only focus on analysing the influence of one factor affecting students' academic performance, for example, the study "Impact of part-time work on the academic performance of international students" conducted by Ali (2017) and "The relationship between stress and the academic performance of Higher Institution Students" conducted by (Abdullah et al., 2020). Analysing one factor may not ensure the holistic outlook of the problem since there may be more other factors that significantly affect students' academic performance. In this current study, the author has addressed the gap by providing an intensive analysis of how five factors, encompassing culture shock, language barriers, academic adjustment issues, part-time work, and stress level, collectively impact international students' academic performance.

Finally, the findings of the present study provide new aspects that refine the existing research models on factors affecting the academic performance of international students.

6.2.1 H1: Culture shock impacts foreign students' academic performance in Irish higher education institutions

The initial hypothesis is that culture shock impacts the academic performance of foreign students in Irish higher education institutions. Nevertheless, the findings of the current study did not support this hypothesis. According to the statistics, culture shock did not correlate with academic performance because the Sig-value of this independent variable is greater than 0.05. This unexpected outcome might be triggered by the sample's small size. In fact, the sample of the present research is 150. Although the sample size is sufficient for conducting the quantitative method, certain segments within the sample might be too small to explore the influence of the independent variable on the dependent variable. Therefore, future research can increase sample sizes for these certain segments. Furthermore, replying on the author's self-created data could trigger deviations, which may influence the drawing of causal conclusions. In contrast to this result of this research, the effect of culture shock on academic performance has been evident in prior research. Typically, some studies by Ayyoub et al. (2019) and Furnham (2010) indicate that foreign students might face various academic problems due to cultural differences, which affects their academic performance. They commonly experience some academic problems, such as not understanding comprehensively or feeling confused with lecturers and colleges' regulations (Furnham, 2010) coupled with lacking access to teachers (Mesidor & Sly 2016 and Hailu & Ku 2014). Additionally, culture shock can make international students lack confidence in class engagement (Schein, 2015). Also, this researcher reveals that many students feel uncomfortable and nervous due to unfamiliar teaching styles and different classroom dynamics, which leads to reluctance to ask questions and express their ideas as well as reduced participation. In time, such a passive learning attitude may impede foreign students from understanding their lecturers and adversely affect their academic performance. Overall, most of previous studies show the influence of culture shock on foreign students' academic performance. Even though there is a contrast between the findings of the current research and existing literatures, the author believe that these findings will be a groundwork for future studies to address such limitations and discover new aspects.

6.2.2 H2: Language barriers impact the academic performance of international students in Irish higher education institutions

The hypothesis concerning the negative correlation between language barriers and international students' academic performance is evidenced in the data analysis. Besides, prior studies have also been demonstrated the impact of language barriers on the academic performance. Martirosyan et al. (2015) suggest that foreign students' academic performance can be affected by their trouble with 4 language skills of speaking, writing, listening, and reading. This study also emphasizes the importance of these indicators for education institutions. Chen et al. (2022) and Malik et al. (2021) also state that multiple students in developing countries are unable to achieve good academic performance mainly due to English proficiency and language difficulties. Because of their lack of English-speaking ability and without having taken any English proficiency courses, foreign students from countries where English is not their mother tongue may have difficulty understanding the lectures and interacting with the professors (Malik et al., 2021). Therefore, limited linguistic proficiency can directly or indirectly affect foreign students' academic performance (Chen and Li, 2022). Moreover, Daller and Phelan (2013) emphasize that the academic performance of students can be impacted by their language skills. Lin & Yi (1997) and Fatima (2001) also state that language barriers are a major challenge that foreign students encounter regarding their academic performance. Many international students have encountered obstacles in communication with their teachers, peers, and locals because of poor vocabulary and lack of information about the host country's social norms (Sawir et al., 2012). According to Brown and Holloway (2008) that language barriers caused students participating in their study to experience stress and make it tough to achieve better academic performance. Overall, both previous studies and the present study have a common finding that language barriers have an impact on the academic performance of international students.

To help international students overcome language barriers and acquire a better academic performance, Irish higher education institutions should implement effective strategies such as language support programs, diversity promotion, and faculty involvement. These suggestions are consistent with the recommendations of Girmay (2017). According to this author, the effectiveness of language support programs in improving language competence and reducing language barriers for international students has been highlighted in a number of previous studies. These programs should include appropriate courses that provide targeted instruction in speaking, listening, reading, and writing. In addition, one-on-one tutoring, language workshops and exchanges with native speakers or fellow learners are indispensable.

Furthermore, promoting diversity and inclusion is important to create a welcoming atmosphere to combat discriminatory practices. It is worth noting that faculty engagement is of paramount importance in helping international students overcome language barriers. Education institutions should develop comprehensive teaching methods, including clear instructions, visual supports, and encouragement of active classroom participation. Instructors should be conscious of the language-related obstacles encountered by international students and provide additional support when needed (Girmay, 2017).

6.2.3 H3: Academic adjustments impact the academic performance of international students in Irish higher education institutions

In addition to language barriers, academic adjustments can be deemed as an important factor that influence foreign students' academic performance. The data analysis shows that this factor negatively affects the academic performance of international students in Irish higher education institutions. There are several prior studies that support the findings. Edward and Ran (2006) emphasise that due to the limited understanding about the host country's academic system, numerous foreign students encounter several academic problems, including study skills, group assignments, plagiarism, and the relationship with teachers. This negatively impacts their academic performance when studying in a new country. Furthermore, another study conducted by Grant (2010) discovers that some foreign students seemly find it challenging to thoroughly understand the marking system and assessment strategies of their education institutions. Also, according to Carroll (2008), many are unfamiliar with academic tasks, for example, essays, presentations, individual reflection reports, and group work activities. This makes them have feelings of stress when they are unable to keep good grades that they once acquired in their home country. In addition, Arthur (2004) emphasizes that the adaptation to a new curriculum can trigger additional pressure to redefine international students' personal abilities and disrupt previous levels of academic achievement.

Education institutions can provide international students with academic advising services to share and instruct them about the marking system, fundamental requirements of doing assignments, and the way of using technology and online resources for their studies. This can help international students improve their academic skills. Indeed, this advice related to addressing academic adjustments issues are consistent with some previous studies carried out by Cherry and Hui (2022). Additionally, universities can design peer mentoring programs to address international students' individual needs and challenges. However, it is possible to make recommendations to universities concerning the use of digital platforms. Although the digital implementation of peer mentoring programs is effective, it may be less effective than non-

digital formats (Smailes and Gannon-Leary, 2011). Universities, thus, should prioritize face-to-face interactions in implementing peer mentoring programs but can use digital formats (e.g., WhatsApp groups) to facilitate frequent communication between mentor and mentee. Given that peer mentoring had the significant impact on foreign students' academic integration (Tinto, 1993).

6.2.4 H4: Working part-time while studying has a negative linkage with the academic performance of international students in Irish higher education institutions

Working part-time while studying is another factor that affects the academic performance of foreign students. The findings of the present research reveal that this factor has a negative influence on the academic performance of international students in Irish higher education institutions. Prior research on fixed-term employment by Darolia (2014) and Hall (2010) has shown that part-time work while studying has an overall negative effect on students' academic performance related to year-end grades and degree results. As per saying by Hall (2010), most previous results highlight that time management is the most important factor in the practice of both studying and working. Not keeping a balance between study and work might adversely affect numerous students' academic performance. According to Tessema et al. (2014) and Hunt et al. (2004), multiple students have found it challenging to manage time and have a balance between college schedule and part-time work to complete academic work. Azis and Yusanti (2021) state that poor time management between study and work of students makes it difficult for them to enter college, difficult to study, difficult to do group exercises and tired leading to dropping out of school.

Therefore, arranging appropriate study schedules for students to ensure both their studying and working is one of the issues that educational institutions need to pay attention more. Schools should consider supporting international students working part-time, including early mentoring and guidance through student services, and more specific timetables to manage their work and study. Additionally, schools should improve interactions with local employers of current international students and encourage better working conditions. To achieve this goal, they should promote part-time job opportunities from the start, which complement international students' study in terms of time as well as their attributes. In the context of the cost-of-living crisis and the importance of part-time work, the study calls for discussion at sector level through (for example) mission groups, to redefine "full-time study". This will include the expectations of international students should have of educational institutions inside and outside the classroom. At a local level, discussions should focus on the specific needs of students to better support students to arrange part-time work around their study. Moreover, talking and sharing

with international students about their part-time jobs would be of the great ways to raise their awareness about quality of work and transferable skills. Also, education institutions should roll assessment deadlines, timetable clearer as well as utilising a structured in-programme employability curriculum, which enables international students to manage time between their study and part-time work better and acquire accessible work experience tailored to their aspirations. Indeed, these recommendations align with proposals made by (Wright et al., 2024).

6.2.5 H5: Stress level impacts the academic performance of international students in Irish higher education institutions

According to the above multiple regression model, stress level is the factor that has the biggest impact on international students' academic performance in Irish higher education institutions. The influence of stress levels on students' academic performance has been supported in previous studies. Struthers et al. (2000) suggest that college students tend to have a sense of tension when pursuing their academic goals, adversely impacting their academic performance. Further exploration of the linkage between academic stress and academic performance in university has also been demonstrated in some studies by Tennant et al. (2007) and Freire et al. (2016). Also, as per say by Lumley and Provenzano (2003), high stress levels seem to negatively affect the quality of students' learning by impacting their concentration and memory ability. Stoliker and Lafreniere (2015) carried out a study regarding analysing the effect of stress, burnout, and solitude on students' overall academic performance in in a Canadian university. The outcome of this study show that such factors are negatively correlated with their academic experience and academic performance. They have to handle various problems and pressure from assignments, part-time work, family to social relationships, which lead to their high stress level. Another study by Qun et al. (2018) also reflects to the findings. They observe that the stress related to culture shock can exhibit in a variety of physical disorders with several symptoms, such as headaches and sleep disruption (Qun et al., 2018). Consequently, physical stress can further negatively impact students' academic and social abilities.

Hence, higher education institutions need to have solutions to mitigate this negative impact. It is advisable for higher education institutions to guarantee that foreign students are knowledgeable about school regulations related to admissions, curriculum, and assessment methods to help eliminate their stress. Additionally, international students should be provided quick and convenient digital access to information in terms of the local environment and education systems. Each of them should have their own mentor assigned from among the older foreign students, which helps them receive timely academical and mental health support when necessary. Furthermore, to support international students to relieve stress, education institutions

should have psychological consulting rooms. They are placed where the former can share their personal problems. Psychological counsellors can help international students who are experiencing stress learn to control their emotions better and think about things positively. In addition to an unfavourable learning environment, foreign students are expected to attend scheduled counselling sessions to reduce academic stressors. These recommendations in this study are compatible with previous research by Lal (2014) and Regehr et al. (2013). As per saying by Regehr et al. (2013), while the number of students experiencing depression, tension, and nervousness has increased significantly, only a minority of them have received treatment services and support from their colleges. Therefore, psychological and behavioural interventions are all effective in relieving students' stress. Universities play an important role in promoting positive mental health among students, especially international students.

6.3 Practical Implications

This research brings critical practical implications for education institutions and policy makers. The findings of the study provide education institutions with a deep insight into various challenges, typically, culture shock, language barriers, academic adjustment issues, part-time work, and stress level experienced by foreign students and the impact of these factors on their academic performance. From that, the former can provide practical support to the latter to overcome these obstacles and obtain better academic performance. For each problem, education institution management should evaluate the needs of foreign students to offer the appropriate supporting and motivating tools for them. Foreign students may need to be encouraged to actively associate with students other than those who are similar to them, especially in terms of observable characteristics such as their geographical origin ((Sadewo *et al.*, 2020). For example, connecting with other students whose skills complement your own and building friendships with them will be significant for broadening their knowledge and boosting creativity. To promote interactions among diverse members of the student community, academic and support staff can facilitate domestic and foreign students to communicate and work with each other through organizing group assignments and teambuilding activities. Indeed, the role of academic advisors and school organizations needs to be promoted to build a dynamic and supportive learning environment and create learning motivation for students through the formation of clubs and study groups to have sharing and exchange between students, helping to overcome academic adjustment issues and achieve better academic performance. In addition, education institutions and local authorities should improve interactions with local employers of current international students and encourage better

working conditions. This may help ensure foreign students' labour rights and benefits as well as reduce their work stress level.

6.4 Limitation of Study

Due to the limitation of physical contact, the author opted an Internet-based data collection method, which may lead to some difficulties during the data collection process. Although the questionnaire has the potential to reach a significant number of respondents, it is relatively difficult to achieve reliable responses when this method is applied instead of physical data collection.

It should also be mentioned that the selection of participants is another general limiting factor in this study. The choice of respondents was deliberate but convenient since respondents were international students who have studied in Irish higher education institutions. However, Vietnamese and Indian were over-represented in the current study, accounting for 30.7% and 25.7%, respectively of the sample, which might affect the sample's characteristics. Besides, masters students accounted for the highest percentage in this survey, consisting of over 69.9% of the sample.

Question 5: What is your current level of study?
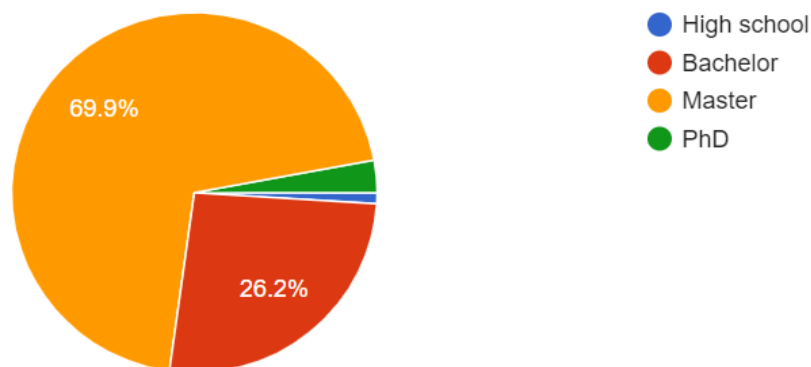
Figure 5: The percentage of the level of study of respondents (Source: Self-created)

In fact, students pursuing master's and PhD degrees tend to have better English proficiency than students pursuing a Bachelor's degree due to the higher English language requirements (NCI, 2024). The results of this study might be influenced by master's students making up the majority of the sample. Additionally, students with greater work demands may face more time limitations, which might impact them to rush through completing the questionnaire without attention to read questions carefully.

Given that the results of culture shock were unable to predict academic performance in the current research. On other hand, in some existing research, culture shock has a correlation with the academic performance. It is suggested that future directions of research examining the impact of culture shock on academic performance should take into account the possibility of controlling for multiple factors.

6.5 Recommendations for Future Research

Because the current research still has mentioned limitations, future studies are expected to overcome the shortcomings to increase the validity and reliability of the study results.

Future research can consider applying more sophisticated sampling techniques, such as stratified sampling and systematic sampling, to increase the number of respondents and improve the representativeness of the sample, which helps deal with size and time constraints in future research. Additionally, to address the issue of limited number of participants due to limited sources of contacts, future researchers can use diverse online survey platforms, such as social media channels, to approach more respondents in a short period of time. Besides, future research should attempt to collect representative samples of students at each taxonomic level to evaluate the divergent linkage between language barriers and academic performance.

Besides, to acquire various goals and address shortcomings of using a single method, future research should choose mixed method which is the use of both quantitative method and qualitative method (Melnikovas, 2018). For instance, thorough interviews should be conducted to provide insights into obstacles that foreign students face when studying in Ireland and their impact on the academic performance. John (2024) states that interviews can help researchers gather detailed information related to research questions and directly control the process as well as have the chance to clarify certain problems during the process. For future studies, these recommendations can be applied to address the barriers of small sample sizes and unrecognized populations and improve the validity and reliability of their results.

The current study only focuses on examining five factors, including culture shock, language barriers, academic adjustments, part-time work, and stress level, affecting foreign students' academic performance within the Irish context. In addition, previous literatures also analyse various determinants that can impact the academic performance. It is possible that there are many other factors that have a correlation with students' academic performance. Therefore, future studies can continue to explore other factors and have more in-depth analysis about the relationship between them and the academic performance.

6.6 Summary

From the discussion, it can be summed up those hypotheses regarding the correlation between academic adjustment issues, language barriers, part-time work, and stress level and foreign students' academic performance were validated. Those factors are negatively correlated with the academic performance. Meanwhile, another result of the study reveals that culture shock has no relationship with international students' academic performance in Irish higher education institutions. Based on the negative relationship between factors about language barriers, academic adjustment issues, part-time work, and stress level with academic performance, they provide insight into challenges that international students have to face affecting their academic performance within the Irish context. Besides, these findings can help higher education institutions provide international students with more essential and effective support as well as improve their academic performance. This can result in substantial advantages for both the former and the latter. The constraints of sample size and time limit can be deemed as a motivation for future research to continue to explore and address these limitations by using a multi-method approach and another sampling method to improve the robustness of the research findings as well as contribute to many perspectives on the education quality in Ireland in particular and in other countries in general.

CHAPTER 7: CONCLUSIONS

The present study has offered experimental research evidence on five issues, including culture shock, language barriers, academic adjustment issues, part-time work, and stress level and their impacts on foreign students' academic performance in Irish higher education institutions.

Before building a new research model in this research, the author reviewed relevant existing literatures and found out various factors that influence the academic performance of students. A study by Antonia Lozano Diaz (2003) emphasizes students' academic performance is significantly affected by their academic environment and personal motivation. In another study, Haile and Nguyen (2008) observe that the race and family background have the strong relationship with students' academic success. Part-time work is one of the factors that has been examined in many prior studies. Ali (2017) reveals that working part-time while studying has both positive and negative effects on their academic performance. Unlike Ali (2017), Azis and Yusanti (2021) state that students working part-time while studying can acquire a good academic performance because of the experience they gained as a part-time student and that is not possible if just a normal student studying. A new factor mentioned in the research by Li et al. (2023) is academic stress. This study finds out that students with lower stress levels have better academic performance than students who do not. Another study conducted by Sunday and Henry (2015) shares perspective about the learning experiences of international students in UK universities through exploring determinants that affect their academic performance, encompassing language barriers, social adaptation barriers, academic issues, and cultural issues. Additionally, Munoz and Portez (2001) indicate that one of the crucial determinants affecting students' academic achievement is economic conditions, family circumstances, study habits, time management skills coupled with health status. However, most of these research focus on analysing one or two factors as well as investigating research subjects being general students. Therefore, based on some advantages of previous research models, the author formulated a new research model that examines the relationship of five key factors, including culture shock, language barriers, academic adjustment issues, part-time work, and stress level with the academic performance of international students within the Irish context.

In this research, the author applied descriptive statistical techniques and multiple regression model to analyse the correlation between five key factors and the academic performance. Particularly, to reexamine five hypotheses provided in the Research question chapter, the author used the Multiple Linear regression model. It is noted that 4 of 5 hypotheses

were proved by the current study. The findings of data analysis can provide insight into the linkages between independent variables and those which are important predictors of academic performance. Prior studies also demonstrate that language barriers, academic adjustment issues, part-time work, and stress level are negatively correlated with international students' academic performance. Strikingly, the findings of the current study did not show a notable correlation between culture shock and academic performance as demonstrated in some previous studies by Ayyoub et al. (2019) and Furnham (2010). According to these research, foreign students might face various academic problems due to cultural differences, which affects their academic performance. Overall, by using descriptive statistical techniques and multiple regression model, the present research examined and proved four key factors, including language barriers, academic adjustment issues, part-time work, and stress level, that negatively impact international students' academic performance in Irish higher education institutions.

It is essential to have further research to provide a better understanding of the impacts of culture shock, language barriers, academic adjustment issues, part-time work, and stress level on the academic performance of foreign students. The present research will inform researchers whether the findings can be broadly applied to all international students in higher education institutions. Moreover, there are still some limitations observed during the research process. Typically, the reliability of the results of the present study might be impacted by the short duration of the survey and relatively small sample size. The findings and limitations from the current study can serve as a foundation for future researchers in identifying more factors that influence academic performance, positively or negatively. Future studies can be carried out on a large scale with a large number of foreign students to explore the extent of the influence of these factors in more depth.

Indeed, these findings in the current research are vital since they can make international students, lecturers, and education institutions more aware of the factors which can affect foreign students' academic performance. From that, policymakers and education institutions can have practical solutions to help international student confront challenges related to culture shock, language barriers, academic adjustment issues, stress level as well as pressure between study and work.

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APPENDICES

Appendix 1: The questionnaire

The questionnaire: Examining key factors that impact the academic performance of international students in Irish higher education institutions

What is the project about?

The project is about examining the key factors affecting the academic performance of international students in Irish higher education institutions.

Who is undertaking it?

My name is Thi Hong Nguyen, and I am pursuing a Master's degree at National College of Ireland. I am currently undertaking a dissertation as a part of my Master's degree which involves conducting a research study.

Why is it being undertaken?

International students may experience many difficulties when studying in a new country. The study aims to examine the impact of these factors on international students' academic performance in Ireland. Your participation in this research is voluntary.

What are the benefits of this project?

The ultimate goal of this research is to provide practical insights for international students' academic experience and the key factors affecting them.

Participants must be a student who used to study or is currently studying in Irish higher education institutions. You are required to fill out a questionnaire that will take approximately 5 minutes to complete. The questionnaire will not request any personal information, to ensure that the identity of the respondents remains anonymous. No information which may be used to identify you as an individual will be collected such as name, contact details or IP address. Your engagement play an important role for the research's success. I am extremely grateful for your valuable contribution.

The questionnaire is designed to understand the factors that influence foreign students' academic performance in Irish higher educational institutions. There are totally 40 questions, including multiple choice and short answer questions.

Have you been studying in a higher educational institution in Ireland?

Yes

No

Question 1: What is your age?

Under 18

18-25

26-34

35 and above

Question 2: What is your gender?

Male

Female

Other

Question 3: What is your home country?

Question 4: How long have you been living in Ireland?

Less than 1 year

1-2 years

2-3 years

More than 3 years

Question 5: What is your current level of study?

High school

Bachelor

Master

PhD

Other

Question 6: What higher education institutions have you been studying in Ireland?

Question 7: Which English proficiency certificate did you get?

TOEFL (Test of English as a Foreign Language)

IELTS (International English Language Testing System)

PTE (Pearson Test of English)

Duolingo English Test

SAT (Scholastic Assessment Test)

None of them

Other

Question 8: How do you rate your English proficiency?

Very poor

Poor

Average

Good

Excellent

Other

Question 9: Are you currently working part-time or full-time?

Part-time

Full-time

Question 10: If "Part-time", how many hours do you work per week?

Less than 10 hours

10-20 hours

21-30 hours

More than 30 hours

Question 11: Which days of the week do you work?

Weekdays

Weekends

Both

Question 12: What type of part-time work do you do?

Professor Assistant

Library staff

Waiter

Cashier

Kitchen Porter

Freelance work

Internship

Other

Question 13: Why did you choose to work part time while studying?

Need money to cover the living costs

Accumulate work experience

Develop soft skills

Build professional networking

Apply academic knowledge

Fill the free time

Explore future career opportunity

Other

	Academic performance scale	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	Meaning of scale 1-5 Scale of 1-5 indicates 1 as strongly disagree, 2 as disagree, 3 as neutral, 4 as agree, 5 as strongly agree					
Culture shock	_Question 14_: The feelings of homesickness and cultural adjustment have affected my ability to complete assignments on time					
	Question 15: I have felt isolated when working with my classmates in group activities due to cultural differences					
	Question 16: I have felt unsupported by					

	teachers and academic advisors in dealing with cultural adjustment issues					
	Question 17: I have found it difficult to adapt to the teaching style of the lecturers here at my university					
	Question 18: Cultural misunderstandings have impacted my relationships with lecturers and classmates					
	Question 19: I have felt stressed due to cultural differences in the academic environment					
Language barriers	*Question 20*: Some lecturers' accents have made it difficult for me to understand the lecture					
	Question 21: I could not					

	understand clearly some of the expressions and idioms lecturers used				
	Question 22: I could not keep up with the pace of the discussion as well as understand questions when having group activities				
	Question 23: I have found it challenging to express my ideas in English in front of the class				
	Question 24: Some classmates could not understand exactly what I was saying due to my incorrect pronunciation				
	Question 25: I have felt insecure when speaking in English				

	Question 26: I think my current level of English proficiency is inadequate for my academic success in Ireland					
Academic issues	Question 27: I have found it difficult to understand the grading system at my institution well					
	Question 28: When I first enrolled in Ireland, I found it difficult to clearly understand the requirements of assignments and exams					
	Question 29: I have felt uncomfortable with the use of technology and online resources for my studies					
	Question 30: I have found it challenging to manage the					

	academic workload at my institution				
	Question 31: I have found it difficult to do assignments and exams well				
	Question 32: I could not adapt to the academic expectations and standards of my institution well				
	Question 33: I could not perform academically well as I could in my home country				
Part-time work	*Question 34*: I have missed classes to meet part-time work commitments				
	Question 35: I have not had enough time to finish my assignments and review my knowledge after each class because				

	of my part-time work				
	Question 36: I have missed deadlines for assignments in the last semester				
Stress level	*Question 37*: I have felt very stressed while pursuing my academic goals				
	Question 38: I have felt overwhelmed handling my personal problems when studying in Ireland				
	Question 39: I have felt very stressed when I could not understand what the lecturer was teaching because of a lack of attention in class				
Academic performance	*Question 40*: I think my academic performance of				

	the last semester was good				

Appendix 2: The original database from SPSS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.858[a]	.736	.727	.31279

a. Predictors: (Constant), CS, AI, SL, PW, LB

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39.244	5	7.849	80.222	.000[b]
	Residual	14.089	144	.098		
	Total	53.333	149			

a. Dependent Variable: AP_R

b. Predictors: (Constant), CS, AI, SL, PW, LB

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.296	.224		28.051	.000
	LB	-.274	.041	-.327	-6.753	.000
	AI	-.292	.053	-.250	-5.497	.000
	PW	-.234	.037	-.293	-6.246	.000
	SL	-.262	.032	-.381	-8.092	.000
	CS	-.042	.036	-.053	-1.171	.244

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→ Descriptives

	N	Minimum	Maximum	Mean	Std. Deviation
CS1	150	1	5	3.34	.975
CS2	150	1	5	3.23	.913
CS3	150	1	5	3.36	.957
CS4	150	1	5	3.45	.959
CS5	150	1	5	3.39	.982
CS6x	150	1	5	3.46	.924
LB1	150	1	5	3.17	.737
LB2x	150	1	5	3.09	.789
LB3	150	1	5	3.37	.959
LB4	150	1	5	3.39	.911
LB5	150	1	5	3.45	.799
LB6	150	1	5	3.39	.940
LB7	150	1	5	3.40	.948
AI1	150	1	5	3.85	.754
AI2	150	1	5	3.75	.723
AI3	150	1	5	3.66	.731
AI4x	150	1	5	3.63	.878
AI5	150	1	5	3.63	.671
AI6	150	1	5	3.81	.576
AI7	150	1	5	3.97	.768
PW1	150	1	5	3.08	.863
PW2	150	1	5	3.07	.828
PW3	150	1	5	3.01	.882
SL1	150	1	5	3.68	.992
SL2	150	1	5	3.59	.970
SL3	150	1	5	3.63	.886
Valid N (listwise)	150				

Descriptive Statistics