

MINISTRY OF EDUCATION, YOUTH AND SPORT



**THE UNIVERSITY OF CAMBODIA
COLLEGE OF EDUCATION**

**HOME ENVIRONMENT ON PERSONALITY AND
ACADEMIC PERFORMANCE AMONG UNDERGRADUATE
STUDENTS IN CAMBODIA**

Dissertation

*Submitted to The University of Cambodia as a partial requirement for the
fulfillment of the Degree of Doctor of Philosophy in
Educational Administration*

HENG SEREY RATHANA

2025

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2025

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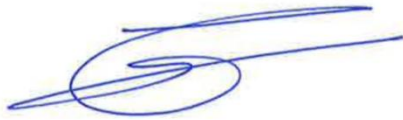
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STATEMENT OF ORIGINAL AUTHORSHIP

I, **HENG SEREY RATHANA**, certify that this present doctoral dissertation is my own work unless otherwise indicated in the context.

A stylized handwritten signature in blue ink, consisting of a large loop and a horizontal stroke.

Signature

Date:11-April-2025

STATEMENT OF COMMITTEE APPROVAL

We declare that we have read this dissertation and that, in our opinion, it is satisfactory in scope and quality as a contribution towards the degree of Doctoral of Philosophy in Educational Administration.

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ABSTRACT IN ENGLISH

The home environment plays a significant role in contributing to students' personality development and academic performance. The fundamental objectives of the study were to identify the level of personality, academic performance, and family relations of undergraduate students and to investigate if there is a significant correlation between home environment and students' personality. In addition, this study is designed to discover the correlation between home environment and students' academic performance among undergraduate students in the target university in Cambodia.

A total of 100 undergraduate students, from different faculties and schools of a private university in Phnom Penh, participated in this study, derived through the Table of Yamane, stratified random sampling, and simple random sampling. The research instrument was the survey questionnaire, comprised of four self-reported measures: (1) Demographic Characteristics (Parveen, 2007); (2) Family Relations (Hudsen, 1982); (3) Personality (Goldberg, 1999); and (4) Academic Performance (Kyoshiba, 2009). The null hypotheses were tested. The collected data were analyzed using descriptive and inferential statistics via a computer program.

Several important findings emerged from this study. The personality among the undergraduate students as a whole was at a moderate level, while the students' academic performance was at a fair level, and the students' family relations were at a high level. Home environment dimensions of father's education ($r = 0.281, p=0.005$) and occupation ($r=0.321, p=0.001$), mother's occupation ($r=0.216, p=0.031$), family relations ($r=0.362, p=0.000$), and family type ($r=0.242, p=0.015$) were statistically significant correlated with students' personality, while father's education ($r= 0.341, p=0.001$) and occupation ($r=0.294, p=0.003$), mother's education ($r=0.270, p=0.007$) and occupation ($r=0.283, p=0.004$), family's monthly income ($r=0.302, p=0.002$), family relations ($r=0.378, p=0.000$), size of family ($r=0.20, p=0.046$), and family type ($r=0.310, p=0.002$) were statistically significant correlated with students' academic performance. The implications are discussed, focusing on theory, pedagogy, institutional policy, and practices.

Keywords: Home Environment, Personality, Academic Performance, Undergraduates

ABSTRACT IN KHMER

មូលន័យសង្ខេប

បរិយាកាសគ្រួសារដើរតួនាទីយ៉ាងសំខាន់ក្នុងការចូលរួមអភិវឌ្ឍបុគ្គលិកលក្ខណៈនិងលទ្ធផលគុសការបស់និស្សិត។ ការស្រាវជ្រាវនេះមានគោលបំណងចង្អុលដើម្បីរកឱ្យឃើញពីកម្រិតនៃបុគ្គលិកលក្ខណៈ លទ្ធផលគុសការ ទំនាក់ទំនងគ្រួសាររបស់និស្សិតនិងស្វែងរកសហសម្ព័ន្ធភាពរវាងបរិយាកាសគ្រួសារជាមួយបុគ្គលិកលក្ខណៈរបស់និស្សិត។ ទន្ទឹមនេះការសិក្សានេះត្រូវបានរៀបចំឡើងដើម្បីរកសហសម្ព័ន្ធភាពរវាងបរិយាកាសគ្រួសារជាមួយលទ្ធផលគុសការរបស់និស្សិតបរិញ្ញាបត្រនៅកម្ពុជា។

សំណាកស្រាវជ្រាវនៃការសិក្សានេះ គឺនិស្សិតបរិញ្ញាបត្រ ចំនួន១០០ នាក់ ដែលមកពីមហាវិទ្យាល័យនិងសាលាផ្សេងៗគ្នារបស់សាកលវិទ្យាល័យឯកជនមួយក្នុងរាជធានីភ្នំពេញ ដោយកំណត់ចំនួនសំណាកតាមតារាងយ៉ាមីណេ វិធីជ្រើសរើសសំណាកចៃដន្យសមាមាត្រ និងវិធីជ្រើសរើសសំណាកចៃដន្យសាមញ្ញ។ ឧបករណ៍ការស្រាវជ្រាវ ជាកម្រងសំណួរអង្កេត ដែលជាការស្វ័យបង្ហាញខ្លួន មាន៤ ផ្នែក៖ ១-ព័ត៌មានប្រជាសាស្ត្រ (Parveen, ២០០៧) ២-ទំនាក់ទំនងគ្រួសារ (Hudson, ១៩៨២) ៣- បុគ្គលិកលក្ខណៈ (Goldberg, ១៩៩៩)និង ៤- លទ្ធផលគុសការ (Kyoshaba, ២០០៨)។ សម្មតិកម្មសូន្យ ត្រូវបានធ្វើតេស្ត។ ទិន្នន័យ ដែលប្រមូលបាន ត្រូវបានយកមកវិភាគ ដោយប្រើប្រាស់ស្ថិតិតំណាងនិងសន្និដ្ឋានតាមរយៈកម្មវិធីកុំព្យូទ័រ។

លទ្ធផលសំខាន់ៗនៃការស្រាវជ្រាវនេះ ត្រូវបានលើកយកមកបង្ហាញ។ ស្វ័យបង្ហាញខ្លួនលើបុគ្គលិកលក្ខណៈរបស់និស្សិតសាកលវិទ្យាល័យនៅកម្ពុជា ស្ថិតនៅកម្រិតមធ្យម ខណៈលទ្ធផលគុសការស្ថិតនៅកម្រិតទាប និងទំនាក់ទំនងគ្រួសារ ស្ថិតនៅកម្រិតខ្ពស់។ សមាសភាគបរិយាកាសគ្រួសារលើផ្នែកការអប់រំរបស់ឪពុក ($r = 0.281, p=0.005$) និងមុខរបរឪពុក ($r=0.321, p=0.001$) មុខរបរម្តាយ ($r=0.216, p=0.031$) ទំនាក់ទំនងគ្រួសារ ($r=0.362, p=0.000$) និងប្រភេទគ្រួសារ ($r=0.242, p=0.015$) មានសហសម្ព័ន្ធភាពជាមួយបុគ្គលិកលក្ខណៈនិស្សិតបរិញ្ញាបត្រ ខណៈផ្នែកការអប់រំឪពុក ($r= 0.341, p=0.001$) និងមុខរបរឪពុក ($r=0.294, p=0.003$) ការអប់រំម្តាយ ($r=0.270, p=0.007$) និងមុខរបរម្តាយ ($r=0.283, p=0.004$) ប្រាក់ចំណូលប្រចាំខែគ្រួសារ ($r=0.302, p=0.002$) ទំនាក់ទំនងគ្រួសារ ($r=0.378, p=0.000$) ទំហំគ្រួសារ ($r=0.20 p=0.046$) និងប្រភេទគ្រួសារ ($r=0.310, p=0.002$) មានសហសម្ព័ន្ធភាពជាមួយលទ្ធផលគុសការរបស់និស្សិតបរិញ្ញាបត្រនៅកម្ពុជា។ អនុសាសន៍សម្រាប់ការអនុវត្ត ត្រូវបានយកមកពិភាក្សា ផ្ដោតលើទ្រឹស្តី គុកោសល្យ គោលនយោបាយស្ថាប័ននិងការអនុវត្ត។

ពាក្យគន្លឹះ៖ បរិយាកាសគ្រួសារ បុគ្គលិកលក្ខណៈ លទ្ធផលគុសការ និស្សិតបរិញ្ញាបត្រ

DEDICATION

This dissertation is dedicated to my family for their endless love, support, inspiration,
and encouragement.

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LIST OF ABBREVIATIONS

ACC	Accreditation Committee of Cambodia
APA	American Psychological Association
CoE	College of Education
CoSS	College of Social Sciences
DV	Dependent Variable
GPA	Grade Point Average
HEIs	Higher Education Institutes
HOME	Home Observation for the Measurement of the Environment Inventories
MoEYS	Ministry of Education, Youth and Sport
IOC	Item Objective Congruence
IV	Independent Variable
KTS	Keirsey Temperament Sorter
RGC	Royal Government of Cambodia
SES	Socio-Economic Status
SFL	School of Foreign Languages
SPSS	Statistical Package for the Social Sciences
STEAM	Science, Technology, Engineering, the Arts, and Math
TFSB	Tony Fernandes School of Business
ToP	Theory of Performance
UC	The University of Cambodia
UN	United Nations
UNICEF	The United Nations International Children's Emergency Fund

CHAPTER 1: INTRODUCTION

This is the first introductory chapter of the research study. It starts with the background of the study, followed by the statement of the problem, objectives of the study, and research questions. The research hypothesis, scope, and limitations of the study are mentioned. Then, the significance and contribution of the study are continually theoretically and practically raised. This chapter also proposes the research conceptual framework. The operational definitions of terms used in this study are all discussed in this chapter.

1.1 Background of the Study

Universities were first created to satisfy students' requirements for education and research (Haskins, 1957). Universities' mission has evolved, becoming centers for acquiring information and skills for particular societal goals (Altbach & Berdahl, 1981). Currently, universities serve as a location of study, research, and service as well as the entry point to important responsibilities in society (Altbach & Berdahl, 1981); however, these functions now come with financial requirements. Universities have had to adjust to their aspirations and cultural and ethnic backgrounds over time (Altbach & Berdahl, 1981). The literature highlights how important motivation is for students' academic progress. Academic achievement, for example, is significantly influenced by a student's motivation to complete and thrive in university (Martin & Lazendic, 2018; Wu, 2019).

Under its importance, effective academic performance is strongly impacted by the family environment. Academic performance is predicted by several family factors in both Asian and Western countries. These include family structure, socioeconomic status, parental school engagement, the quality of the parental connection, and parental school ambitions. According to Zografova et al. (2019), students' personality development is greatly influenced by their surroundings, especially the family context.

Recent researches on students' academic performance have been carried out in numerous nations and in a range of environments. For instance, Yousef (2017) studied the factors influencing undergraduate business students' academic performance in quantitative courses at a public university, Kyoshiba (2009) studied the factors affecting undergraduates at Uganda Christian University, Olatunji et al. (2016) studied factors influencing undergraduate students' performance in construction-related fields of study, and Eze and Ingelbedion (2015) examined significant variables that influence the academic performance of international students in UK universities. Additionally, scholars such as Nakao (2000) and Parveen (2007) were also interested in learning more about students' personalities. The family environment affects students' personality traits, citing studies conducted in Japan by Nakao et al. (2000). The study also provided some clarification on the significant impact of the family environment on the personality of Pakistani high school students (Parveen, 2007). These studies explained the effect of academic motivation on student academic performance to help comprehend the impact of intrinsic and extrinsic motivation on academic performance.

In an educational environment in Cambodia, World Bank Review (1995) explained the reform of educational focus on to extend of educational opportunity to all the school-age of children according to geography, wealth, health, and gender; the quality of reform is concentrated on the quality of material, teachers, leadership, and management. In addition, the Royal Government of Cambodia (RGC), which is represented by the Ministry of Education, Youth and Sport (MoEYS), established and executed the strategic plan to ensure the educational reform effectiveness and achieve education for all (MoEYS, 2003b; Hang, 2017; Lim, 2023). Therefore, all students in Cambodia have equal educational opportunity, where the family is the key stakeholder to motivate and influence those students to achieve good academic performance.

Taking into account these numerous factors, most of the students in Cambodia stay with their family since they were born until they finish their studies, or even after they get married. According to UNICEF (2018), over 75% of children in 2014 lived with both parents, making up 89% of all children living with at least one parent. Considine and Zappalà (2002) proved that the family who took good care of their children positively impacted the student's academic performance. The children who are born and live with a good family who spend time to educate, motivate, inspire, and encourage them, are going to perform well in their academic journey. In addition, individuals also develop their personalities through interacting with family. The personality of individual difference appears to develop from childhood to adolescence based on the behavior and emotions which start from birth (McCrae & Costa, 2013). The personality of children could enhance their communication, relationships, future career, and the journey of life. Dunn et al. (1995) found out that five factors of personality have a total impact on the emotional stability of the people. Therefore, the development of students' personalities is a significant factor in their personal growth.

It is noticeable that the home environment is an extremely important factor that might influence the children's academic performance and personality development Kakkar (2016) and Mammadov et al. (2018). As a result, this research study aims to explore in detail factors related to family environment, personality of the student, and academic performance in a Cambodia context. Since the family environment consists of the interaction between family and students, and sibling members, so it impacts the personality and cognitive development of those students. In response to the above educational challenges, the MoEYS has embarked on education reform by adopting the medium-term review of the education strategic plan, which outlines the twenty-first century educational agenda (Hang, 2017; Lim, 2023; Un, 2023).

1.2 Statement of the Problem

Education policies should focus on the quality of education rather than just access to it. For students to be prepared for the unpredictable future, education must give them both cognitive and non-cognitive skills (Hang, 2017; Lim, 2023; Un, 2023; Mok et al., 2024). Furthermore, both developed and developing nations should pursue education reforms to match the needs of the economy in the future. This will help them accomplish the Sustainable Development Goals (SDGs), which include lifelong learning and a strong focus on 21st-century skills. Hence, the first school for cognitive and personality development is the family environment (Kagan & Neuman 1998). Based on Vygotsky's sociocultural theory, Asgari and Mustapha (2011) claimed that social contact is crucial for the development of cognition. According to the socioeconomic status, family relationships, and historical background of the family, a student's home environment in Cambodia causes various learning disparities. According to Ni, Li, and Wang (2021), enhancing the family environment and the relationships among family members can promote the younger generation's happiness and life satisfaction.

Guided by these perspectives, the home environment is the key factor that shapes the children's personality, characteristics, and behavior. To illustrate, Kagan and Neuman (1998) proved students were influenced by parents' character through their daily activities. In Cambodia's present situation, children were raised at home by their parents or grandparents (UNICEF, 2018). Even Crow and Crow (1965) claimed that the home environment affects student's personality adjustment, and especially the family's socioeconomic level is extremely influential on personality development. Academic performance is the first stage for career success and, combined with the personality traits of the student will lead to success in life.

Cambodia must interact both regionally and globally as an ASEAN member. Diverse cultures and values must be valued by Cambodian graduates. This paradigm shift, therefore, family environment covers the socioeconomic status, including the parent's level of education, parent's occupation, and income; family relations include relations among the husband and wife, relations among siblings, and relations among children and parents; and family characteristic include the size of the family, birth order, and family type (Hang, 2017; Lim, 2023; Un, 2023; Mok et al., 2024). In addition, academic performance consists of performance on lesson tests, in coursework, in midterm and final examinations, in core and compulsory courses, and in grade point average (GPA). Remarkably, personality is then defined as including openness, extraversion, emotional stability, agreeable, and conscientiousness.

While a good number of studies have been conducted regionally and globally, very little is known about the home environment, personality, and academic performance of the student, which are considered extremely important variables in exploring the family relationship. According to the researcher's perspective, knowledge, and experiences, this study may be regarded as an initial investigation into the home environment factors on students' personality and academic performance in Cambodia. The present study has its niche in responding to the problem mentioned above to fulfill the recommendations from the previous researchers, the comparison among the aforementioned prior studies, and fill the gap of prior research. It is intended to use all the results for parents all over the country can establish and sustain healthy parent-child relations in a family to enhance undergraduates' personality in a positive direction and accomplish a higher level of academic performance henceforward.

1.3 Objectives of the Study

The objectives of the current study were threefold:

1. To determine the level of personality, academic performance, and family relations among the undergraduate students in Cambodia.
2. To investigate the correlation between the home environment and personality among the undergraduate students in Cambodia.
3. To examine the correlation between the home environment and academic performance among the undergraduate students in Cambodia.

1.4 Research Questions

Based on the objectives of this study, the following research questions were formulated:

1. What is the level of personality, academic performance, and family relations among the undergraduate students in Cambodia?
2. To what extent is there a correlation between the home environment and personality among the undergraduate students in Cambodia?
3. To what extent is there a correlation between the home environment and academic performance among the undergraduate students in Cambodia?

1.5 Research Hypothesis

Given the objectives of the study and research questions, the specific null hypotheses are stated as follows:

H₀₁: There is no significant correlation between father's level of education and students' personality.

H0₂: There is no significant correlation between mother's level of education and students' personality.

H0₃: There is no significant correlation between father's occupation and students' personality.

H0₄: There is no significant correlation between mother's occupation and students' personality.

H0₅: There is no significant correlation between the family's monthly income and students' personality.

H0₆: There is no significant correlation between the family relations and students' personality.

H0₇: There is no significant correlation between the size of family and students' personality.

H0₈: There is no significant correlation between birth order and students' personality.

H0₉: There is no significant correlation between family type and students' personality.

H0₁₀: There is no significant correlation between father's level of education and students' academic performance.

H0₁₁: There is no significant correlation between mother's level of education and students' academic performance.

H0₁₂: There is no significant correlation between father's occupation and students' academic performance.

H0₁₃: There is no significant correlation between mother's occupation and students' academic performance.

H0₁₄: There is no significant correlation between family's monthly income and students' academic performance.

H0₁₅: There is no significant correlation between the family relations and students' academic performance.

H0₁₆: There is no significant correlation between the size of family and students' academic performance.

H0₁₇: There is no significant correlation between the birth order and students' academic performance.

H0₁₈: There is no significant correlation between the family type and students' academic performance.

1.6 Scope and Limitations of the Study

For this study, the following limitations were anticipated to be present:

1. The current study was conducted in only one of the private universities located in Phnom Penh. This included the limitation of the generalizability of results to the selected population.
2. The random sampling could only be selected from the undergraduate programs.
3. The variables that were selected for the study were concentrated only on the most essential, according to the recommendations from the literature.
4. The current study was concentrated on university undergraduate students who were from different faculties, colleges, and schools, which included the honesty of the surveyed students and the lack of information the researcher had about both participants and those who chose not to participate in the study.
5. All variables in this research were analyzed according to a correlation study.

All these limitations could impact the findings of this study.

1.7 Significance and Contribution of the Study

This current study contributes to its results to all participants, educators, researchers, families, lecturers, universities, the Ministry of Education, Youth and Sport (MoEYS) as well as the other stakeholders in the education sector. Hence, this current study is significant in five ways as follows:

Firstly, the study hopes to make a significant contribution to understanding the level of personality, academic performance, and family relations among undergraduate students in Cambodia. Also, it hopes to reveal significant information about the level of student academic performance, socio-economic status, family relations, student personality, and the results of the correlation of each variable; the stakeholder can use these results for further implication and research.

Secondly, the current study will inform and suggest students' families plan, organize, and manage their time spent on family relations, children's educational performance report, and motivation; and inspire parents to create a good home environment that aims to help their children to perform well in education and develop a positive personality.

Thirdly, the results of this study may have assisted the dean, professors, parents, administrators, curriculum designers, and policymakers in coordinating and planning effective techniques so that the students can graduate from their formal education at the University with a positive personality and higher academic accomplishment.

Fourthly, the current study could suggest the MoEYS to formulate educational home environment policies in order to encourage and inspire parents to be involved in their children's education at home. Also, this study suggests MoEYS contributes to the emerging research on university performance predictions, that is, a student who is academically successful is more likely to persist to graduation.

Lastly, this study could provide an opportunity to inform universities to develop study programs, curriculum, critical pedagogy, and teaching and learning activities to improve student academic performance and students' personalities in a positive direction. It is hoped that the overall results of this current study will contribute to students' university success, graduation, and better options for both life and career.

1.8 Conceptual Framework

The conceptual framework for this current study combined various theories and determined three main variables. Home environment was conceptualized as the Independent Variable (IV), which consisted of family relations, while academic performance and personality were conceptualized as the Dependent Variables (DV). The first DV, academic performance, consisted of performance in the test, performance in coursework, performance in the midterm and final examination, performance in core and compulsory courses, and grade point average (GPA). The last DV – personality, contained openness, extraversion, emotional stability, agreeableness, and conscientiousness, respectively.

By virtue of its importance, the socioeconomic status and family characteristics were conceptualized as the Mediating Variables (MV), while the socioeconomic status consisted father's level of education, the mother's level of education, the father's occupation, the mother's occupation, and family's monthly income. The family characteristics included the size of the family, birth order, and family type. The conceptual framework of this study is presented in Figure 1.1 below.

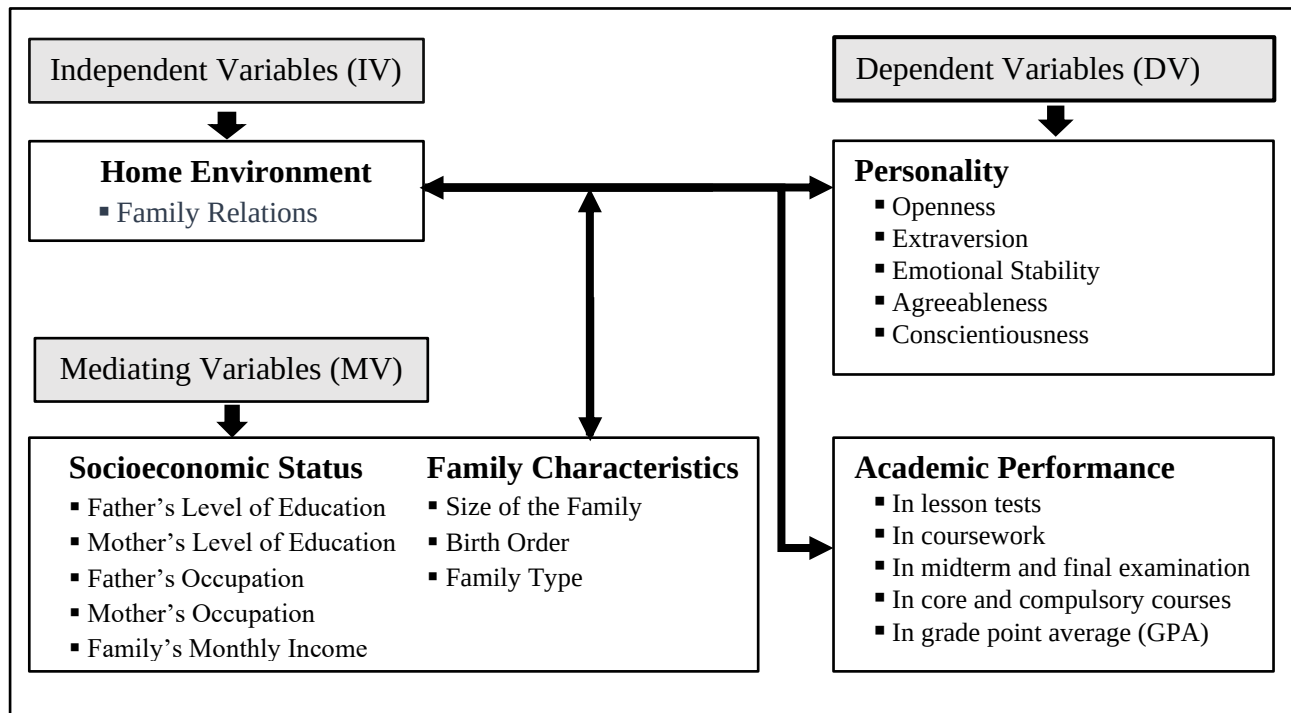


Figure 1.1: Conceptual Framework of the Study

1.9 Definition of Key Terms

It is necessary to discuss and explain key terms and concepts which are used in this current study. The following key terms are defined to give precision to the scope of their meanings in this study.

Home environment refers to the combination of family relations, and socio-economic status which consists of the father's level of education, mother's level of education, father's occupation, mother's occupation, family's monthly income, and family characteristics, including size of the family, birth order, and family type. In this study, a construct of the home environment is developed to measure it as a quantitative variable.

Personality refers to the essence of the individual, consisting of openness, extraversion, emotional stability, agreeableness, and conscientiousness. In this study, a construct of personality is developed to measure it as a quantitative variable.

Academic performance refers to its concentration on the student's performance in lesson tests, in coursework, in midterm and final examinations, in core and compulsory courses, and in grade point average (GPA). In this study, a construct of academic performance is developed to measure it as a quantitative variable.

1.10 Structure of the Dissertation

This dissertation is organized into 6 chapters. Following this introduction, Chapter 2 presents the literature review, which includes Cambodian higher education, home environment, academic performance, personality, previous studies, and research gap.

The methodology utilized in this study is presented in Chapter 3. This chapter concentrates on research design, population and sample, research instrument, reliability and validity, data collection, data analysis, and interpretation. Moreover, chapter 4 focuses on data analyses and results, including descriptive statistics, inferential statistics, and a summary of all the correlation studies in each variable.

Chapter 5 is a presentation of the conclusion of this study. This includes a thorough description and relevant statistical analysis of the study data within the context of each research question. In Chapter 6, the conclusion and recommendations are discussed within the context of each research question as well as in their entirety. Results are summarized, and this research is linked to previous research in the field. Limitations of the study are discussed in connection with the results, and implications for future research are presented. Finally, conclusions are drawn with a discussion of the application for future practice in the field of higher education.

CHAPTER2: LITERATURE REVIEW

This chapter, Chapter 2, presents an overview of selected literature related to home environment as it affects to personality and academic performance of higher education students. This chapter starts with an overview of key concept definitions, followed by the theoretical foundations of the study. This chapter also overviews different theoretical characteristics of home environment, personality, and academic performance, respectively. Previous related research studies and research gaps are also reviewed and determined. Relatively, an overview of higher education in Cambodia is then presented. This chapter ends with a summary of the chapter.

2.1 An Overview of Key Concept Definitions

This section provides an overview of the definitions of key concepts from the literature. There are three main concepts are theoretically reviewed: (1) home environment; (2) personality; and (3) academic performance.

2.1.1 Home Environment

Even though the term “home environment” is wide, the empirical research on the subject was quite detailed. In earlier studies, the impact of particular elements of the larger home environment on children’s cognitive, social, and behavioral abilities was examined. While some researchers concentrated on activities that were directly associated with reading or numeracy performance, others examined the emotional support that was received at home. Several of the studies included experimental mother-child observations, which led to relatively small sample sizes. According to Bradley et al., (2001) and Downer and Pianta (2006), researchers jointly contributed to a better knowledge of maternal education and the home environment about child outcomes, despite these constraints.

The 1979 National Longitudinal Survey of Youth (NLSY), which was funded by the U.S. Bureau of Labor Statistics, had a follow-up phase that included some of the first studies on the family environment. Data on the offspring of the female participants in the initial study were gathered via this 1986 follow-up survey. Apart from gathering data on the children's behavioral and cognitive growth, the survey also gathered information on the standard of their home environment. The Home Observation for the Measurement of the Environment Inventories (HOME) was created by Bradley and Caldwell (1984) to gauge the home environment.

HOME inventories assessed the emotional and cognitive support that kids received from their parents. Parental self-reports on the characteristics of the home environment, such as the quantity of books in the house, the frequency of reading, playing games, and teaching their children's skills, were used. In addition, HOME assessed the warmth of parental engagement and the kinds and frequency of out-of-home visits to the zoo or museum. Home variables were positively correlated with children's school behavior and cognitive abilities, according to the HOME surveys (Bradley et al., 1988; Crane, 1996).

2.1.2 Personality

Personality refers to a collection of personality traits used to explain human behaviors. Despite the existence of other personality type models, the present study will employ the Big Five Personality Model (Engler, 2013). It was discovered that one of the main causes of students' perseverance was psychological characteristics, namely personality types (; Munt & Merydith, 2012; Felder et al., 2002). According to Furnham et al. (2013), academic achievement and personality type were related.

Personality types were evaluated using the Big Five personality theory, which focuses on (a) agreeableness; (b) conscientiousness; (c) extraversion; and (e) neuroticism.

Discussions of (a) educational psychology and retention theories; (b) learning and psychological elements that may influence student persistence; and (c) strategies for addressing the problem of student persistence among doctorate students were also covered in the literature review. Examining the variables will help determine how much they influence students' perseverance. Educational leaders can also promote student persistence by implementing initiatives and raising knowledge of personality types.

Although temperament research, particularly that of Keirsey and Bates (1984), is not as directly focused on personality as this study is, it is connected to Briggs's previous work and Jung's psychological types. The term "temperament" refers to a person's habit of interacting with their surroundings to meet their requirements. Character, according to Keirsey (1998), is a configuration of habits, whereas temperament is a configuration of inclinations. According to Stokes (2001), temperament is an innate human characteristic that people develop suitable behaviors for as they grow older unless it is influenced by an extreme incident.

As a self-assessment tool to determine an individual's temperament, Keirsey and Bates (1984) created the Keirsey Temperament Sorter (KTS/KTSII) based on Plato's categories of human character. The temperaments are categorized as artisan, guardian, idealist, and rational in the KTSII, which was later amended. These categories correspond to the Sensing/Judging, Intuition/Feeling, Intuition/Thinking, and Sensing/Perceiving, respectively.

Personality, according to Allport (1963), is the dynamic organization within the uniqueness of those psychophysical systems that determine a person's distinctive behavior and mental process. Adopting an idiographic perspective, this concept implies the distinctiveness of the student's individuality. Researchers claim that the idiographic view assumes that every individual has a distinct psychological structure and that certain

qualities are subject to the influence of a single individual. On the other hand, the nomothetic perspective stresses human comparison. This method views each person's unique characteristics as having the same psychological significance. Notably, factor analysis and self-report personality tests are frequently used in this perspective (Ariani, 2015).

6.1.3 Academic Performance

Academic performance is defined by educational systems setting standards to define academic progress. Positive results and a decreased inclination to drop out of school were demonstrated by students' academic control. Emerging adults who lack self-regulation abilities may experience undesirable behaviors including school burnout, according to Love et al. (2019). Furthermore, many students had to adjust to life transitions including going to college, living on their own, and entering employment, which may have caused them to put off important life events (Bartoszuk et al., 2021). Cook (2020) discovered a link between helicopter parenting practices and a rise in substance addiction and depressive symptoms, which in turn reduced their capacity for dating and friendship. Significant life events that emerging adults go through, like moving away from their parents, becoming financially independent, getting married, and starting a professional career, can have an impact on their personality and help them become more independent.

Parental over-control and their attempts to address their children's problems may impair their capacity for problem-solving and decision-making in the real world. As noted by Darlow et al. (2017), parents' control over their emerging adults may be interpreted as a sign that they are not capable of making their own decisions. Learning experiences mold helicopter parents' desire to shield their kids from what they perceive to be negative

situations and challenges. Growing up, kids think this is the best course of action for them and value their parents' support.

Students' academic performance from elementary school to university is significantly impacted by their parents' behaviors (Hwang & Jung, 2021). In such cases, helicopter parenting may have begun as a reaction to failure (Love et al., 2019). Parents who get feedback from teachers about their children's lack of mastery of the abilities required at each grade level may interpret this as a perceived learning failure. Helicopter parents were renowned for their desire to help their kids learn by attempting to reduce the difficulties that they encountered. In certain cases, the ongoing assistance of parents was beneficial to children with special needs. To help students acquire skills that reduce the learning gap between them and their peers, parents had to keep a close eye on their kids and communicate openly. Children grew up appreciating their parents' support and thinking that this was what was best for them.

2.2 Theoretical Foundations of the Study

A theory is described as a collection of associated statements, principles, and propositions that outline the relationships between various variables (Ary, 2018). This current research study concentrated on three main theories: (1) Vygotsky's sociocultural theory; (2) performance theory; and (3) personality theory.

2.2.1 Vygotsky's Sociocultural Theory

Underlining the ability to enhance students' academic performance is Vygotsky's sociocultural theory (Vygotsky, 1978). Vygotsky (1896-1943), a psychologist in Russia initiated his work following the Russian Revolution of 1917 with sociocultural theory about how our social interactions influence our cognitive development. McLeod (2024) stated Vygotsky's sociocultural theory sees human development as a socially mediated

process in which kids pick up their cultural knowledge, understanding of the world, values, beliefs, and ways of addressing problems through conversations with more experienced people in the community. The main feature of Vygotsky's Sociocultural Theoretical framework, according to Asgari and Mustapha (2011), is that social contact is crucial for the development of cognition. Moreover, according to Marginson and Dang (2017), Vygotsky defined four "genetic domains" — phylogenetic, cultural-historical, ontogenetic, and microgenetic — for examining higher cognitive processes.

The primary objective of sociocultural theory is to demonstrate the relationship between cultural, institutional, and historical context and individual mental functioning. Accordingly, the sociocultural perspective focuses on how involvement in social interactions and culturally structured activities impacts psychological development. To this viewpoint, social contacts do not only determine an individual's mental functioning; rather, the particular structures and processes that individuals expose can be linked to their interactions with others Scott and Palinsar (2013). According to Cherry (2018), psychologist Vygotsky thought that social interaction — which is a prerequisite for human development — and that parents, caretakers, peers, and society as a whole were responsible for the brain's higher-order processes.

The contribution of sociocultural theory in education was social constructivism, in which individual cognitive function was the product of social interaction; knowledge was constructed and learning took place through social interaction with the context of culture and history; and everything was learned at two levels, first through interaction with others and second through the individual mental structure (Mcleod, 2014).

2.2.2 Performance Theory

In addition to the theory of performance, Elger (2015) outlined how the theory of performance (ToP) evolves and links with six fundamental notions, including context,

level of knowledge, level of skills, level of identity, personal variables, and fixed factors. The goal of the performance is to deliver the desired outcome. The performer may be an individual or a group of individuals working together in a collaborative endeavor. Developing performance is a journey, and the degree of performance indicates where the performer is on that journey. Learning in conventional learning environments like classrooms, workshops, and other gathering places is guided by a theory of performance.

In this study, academic performance is another crucial idea. Some scholars also call it an academic accomplishment. Academic achievement or performance is a key indicator of the future of young people and the country as a whole, in addition to being a gauge of how effective schools are (Nagel, 2016). Nagel also believed that learning outcomes have remained a topic of interest for many academics, which explains why researchers have been putting a lot of effort into identifying the barriers to strong academic achievement. Generally speaking, GPAs show academic success or accomplishment. Adeyemo (2012) noted that students' main objectives are to strive for academic success. The focus is always on sound scholarly success, away from other academic goals that he described as incidental (Adeyemo, 2012).

2.2.3 Personality Theory

Hippocrates was the first to examine personality. He created the four humors theory of personality. His four senses of humor idea evolved further into what is now known as the four temperaments. However, it was not until 1884 that Sir Francis Galton conducted the first significant investigation into a concept, observing that a thorough taxonomy of human personality traits might be derived by sampling languages. The lexical hypothesis was the name given to Sir Francis's theory (Robinson et al., 1994; Dewaele, 2012).

Furthermore, personality follows the regular pattern of thoughts, social adjustments, feelings, and behaviors throughout time, which has a significant impact on a person's expectations, values, attitudes, and self-perceptions. Three main theories of personality exist: the psychodynamic theory, which is connected to clinical psychology; the trait theory, which addresses the issue of individual difference; and the interpersonal theory, which addresses social interaction and practical applications (Hogan & Sherman, 2020). The main three dimensions of subjective well-being — life satisfaction, positive affect, and negative affect — make up the big five personality qualities (Soto, 2015). Being organized, disciplined, and goal-oriented are examples of conscientiousness. The level of emotional stability, impulsive control, and anxiety are all referred to as emotional stability. A greater level of sociability, assertiveness, and talkativeness are indications of extraversion. Strong intellectual curiosity and a love for novelty and variation are two characteristics of openness. Last, agreeableness relates to being supportive, cooperative, and understanding of others (Komarraju et al., 2011; Jensen, 2015). The trait theory of Gordon Willard Allport was used for the current study.

Feist et al. (2018) state that Gordon Willard Allport, the fourth and youngest son of John E. and Nellie Wise Allport, was born in Montezuma, Indiana, on November 11, 1897. Allport received an offer from Harvard for a graduate study fellowship when he was in Turkey. Allport enrolled in Harvard's PhD program right away after returning to the United States. Allport got married to Ada Lufkin Gould in 1925; the two had first met as graduate students. Allport received many awards and prizes. He received the honor to serve as the American Psychological Association's (APA) 1939 president. The American Psychological Association gave him the Gold Medal Award in 1963, the APA Distinguished Scientific Contribution Award in 1964, and the Harvard Richard Clarke

Cabot Professor of Social Ethics title in 1966. Allport was a habitual smoker who passed away from lung cancer on October 9, 1967.

Allport (1937) defined the unique traits that influence behaviors. Traits can measure a continuum and were subject to social, environmental, and cultural influences. Schultz and Schultz (2016) explained the characteristics of traits theory such as first, personality traits are unique and exist within each of us; second, traits determine or establish behavior; third, traits can be demonstrated empirically; fourth, traits are interrelated; they may overlap, even though they represent different characteristics; and fifth, traits had variation with the situation. Allport categorized two kinds of traits such as individual and common. Individual traits are unique to a person and define his or her character. Common traits are shared by a number of people, such as the members of a culture. Numerous psychologists have expressed a favorable opinion of Allport's theory, believing that it offers a more solid foundation for understanding personality than the theories of most other theorists (Piekkola, 2011).

Therefore, this research study exploits the Vygotsky's sociocultural theory; it reflects the interaction of living and learning of the student in the family. According to Vygotsky's sociocultural theory, children learn their cultural knowledge, worldview, values, and problem-solving techniques via interactions with more seasoned members of the community. This process of social mediation occurs during childhood development from birth to death. So, family environment is considered a significant factor in exploring how it relates to a student's personality and academic performance at an educational institute. The current study used Vygotsky's sociocultural theory to explain the association between the theory of performance and the theory of personality.

2.3 Characteristics of Home Environment

In this study, the home environment focused on the family's socioeconomic status, family relationships, family characteristics, family type, family size, and birth order. Benson (2020) explained how children gradually learn to function intellectually as individuals in their culture with the help of their social environment. Furthermore, following Rosser et al. (2017), Vygotsky's theory states that learning takes place in a social environment. Children can learn from the surrounding community through interaction, and family is considered the community which the children are learning from their parents and relatives.

A person's home environment may be described as the atmosphere there, which varies widely depending on a variety of factors from culture to culture, society to society, and family to family. According to Namipijai et al. (2018), the home environment consists of physical (such as furniture, toys, and household items) and social (such as parent-child interactions, family size, and structure) elements that, when favorable, provide psychological stimulation and support required for the best development of early cognitive skills, which in turn predict a person's success in school and the workforce later in life. According to Biedinger (2011), the Home Environment is influenced by the availability of stimulating items (such as books, toys, and teachers who can help), as well as through shared activities (e.g., attending the library or the museum).

Home environmental influence has been underappreciated as one of the factors influencing academic performance in secondary schools, according to Oselumese (2016). Environmental influence is the combination of all a living organism's surroundings, including natural forces and other living things that provide conditions for development and growth, as well as danger and damage. According to Younas and Noor (2020), the term "environment" refers to a collection of internal and external circumstances that have

an impact on a person's existence, growth, and well-being. Additionally, Maigida and Ogwo (2013) focus on how a teen's home environment may either help or impede academic success. The home environment includes everything from the family's social standing and living conditions to its relationships, language, conduct, and emotional state (Xiao et al., 2009)

2.3.1 Socioeconomic Status (SES)

According to Dietrichson et al. (2017), socioeconomic status (SES) is a key indicator of academic success. Socioeconomic status (SES) is a gauge of a person's overall social and economic standing, according to Baker (2014). SES refers to a person's current social and economic situation, so it is relatively dynamic, especially in nations where economic advancement is possible. SES is generally regarded as a latent construct in sociology, and it is measured using a composite measure of education, income, and occupation, or some combination of these three indicators. Contrarily, social class, which relates to a person's sociocultural background, is more stable and typically stays the same over generations (Jones & Vagle, 2013).

The intersection of people's social, cultural, and economic origins and statuses, according to Rubin et al. (2014), determines social class and socioeconomic position. Including other socio-structural factors (like age, gender, and ethnicity), social class and SES have a big impact on people's personalities and actions. People's opinions, values, and preferences, as well as their physical and mental health, may all be predicted, along with what they will dress, consume, and speak about. According to studies, working-class and low-SES students are particularly less likely to get grades, finish their degrees, and feel socially integrated at their institution (Rubin, 2012).

Based on income, education, and employment, socioeconomic status is a combined economic and sociological complete measure of a person's work experience and of their economic and social standing in relation to others (Marmot, 2004). Three

categories such as high, midrange, and low are generally used to categorize socioeconomic position (Lareau & Annette, 2003).

Previous studies have revealed that parents with better socioeconomic status (SES) tend to be smarter and have more positive personality traits that may have contributed to their success (Shanahan, et.al, 2014). So, this study tends to explore the socioeconomic status of Cambodian families and compare the results and how they differ. Furthermore, Okiga (2013) found that students' academic performance was impacted by their socioeconomic status. According to Ali et al. (2013), graduate students' academic success is correlated with their family's socioeconomic position. Therefore, this study investigated the relationship between socioeconomic status with academic performance and student personality to see whether this study's result was aligned or negative with the previous research. The SES was divided into three subcategories: parent's level of education, parent's occupation, and parent's level of income.

2.3.1.1 Parent's Level of Education

The educational background of the parents is one significant environmental factor influencing the child's cognitive development. According to Ominde (1964), education is crucial for developing the skill sets needed for the workplace as well as the distinctive characteristics that separate persons with higher and lower social-economic status. Additionally, children of poor socioeconomic positions generally participate in low levels of academic socializing (Carolan & Wasserman, 2015). Contrarily, families with higher socioeconomic levels are more likely to engage in high-quality home-based participation activities (Fantuzzo et al., 2004).

2.3.1.2 Parent's Occupation

One of the professions with the highest reputation is medicine and surgery, followed by attorneys, chemical and biomedical engineers, and communications analysts.

These positions are categorized as having a high degree of difficulty, aptitude, and control over the working environment. Jobs with lower scores were those in food preparation, counter work, bartending and assistance work, dishwashing work, janitorial and housekeeping labor, cleaning vehicles, and parking lot work. The less desirable vocations paid much less, demanded more work, were quite risky, and provided less autonomy (Okiga, 2013).

2.3.1.3 Parent's Level of Income

How much a person makes includes their earnings and salary as well as other sources of income like investments and savings, which all contribute to their level of income. According to Simiyu (2001), family income includes all forms of revenue, including wages, commissions, profits, rentals, and other sources of income.

2.3.2 Family Relations

The family is a system made up of parents, children, and siblings, and in this system are affected by each other and impact each other. Family is described as a social institution that begins before the birth of individuals and retains its effect until the end of their lives (Uzun et al., 2021). A child's personality characteristics and socialization are greatly influenced by communication and interactions within the family. The research study's focus on family relationships is on relationships between husband and wife, siblings, and children and their parents. The family relations were focused on three relations: relations among husband and wife, relations among siblings, and relations among children and parents. Below are its details.

2.3.2.1 Relations among Husband and Wife

Both good and bad effects on the home environment can be attributed to husband and wife interactions. A close, fulfilling relationship between parents typically reflects a pleasant and supportive home environment. Noller and Victor (1991) claim that a family's

atmosphere is determined by how satisfied the parents are with their marriage. Children are traumatized by parental domestic violence, and the long-term effects may be harmful to the family structure and the children's growth. According to Emery and Leary (1984) said that family conflict is associated with behavioral issues in kids and teenagers.

2.3.2.2 Relations among Siblings

One of the relationships that lasts the longest and has the capacity to affect all facets of a person's life is the sibling bond (Fortuna et al., 2011). During adolescence, sibling relationships have traits that differentiate them apart from friendships and relationships with parents (Kramer & Conger, 2011). Adolescents frequently have emotionally intense sibling relationships that are characterized by competition and conflict, as well as by nurturing and support (Campione-Barr & Smetana, 2010). Adolescent siblings can serve as rivals, emotional supports, and communication partners. Sibling relationships can take many different forms, including sharing, helping, arguing, teaching, and playing. Positive sibling relationships also support teenagers' sociability, health, autonomy, and sense of self-worth (McHale et al., 2012).

2.3.2.3 Relations among Children and Parents

Up to the of 14 to 15 years old, children spend more time with their parents. When children reach puberty, they spend the least amount of time with their parents (Steinberg, 2017). It is widely accepted that parents play a key role in a child's psychological and behavioral well-being (Festen et al., 2013). In addition, research has also shown that successful students have strong academic support from their involved parents (Epstein et al., 2018). Parents who have close relations with their children have time to monitor, guide, and educate the children from home. According to a study, students' academic performance improves when parents participate in their children's educational activities,

show their children affection, attend school events, are democratic and responsive, and maintain high educational expectations (Jaiswal & Choudhuri, 2017).

2.3.3 Family Characteristics

The family characteristics in this research study focus on family type, size of the family, and birth order of the children.

2.3.3.1 Family Type

There are two main types of family, such as nuclear family and joint family. A nuclear family can be defined as a household consisting of two married, heterosexual parents, an in-law, and children (siblings). Members of a unilineal descent group who live together with their spouses and offspring in one homestead under the authority of one of the members are referred to as a joint family (Kumari, 2018). Bilquis and Mayuri (1999) demonstrated that family type and size have an indirect impact on children's personality development.

2.3.3.2 Size of the Family

In the long run, it is anticipated that family size will have a detrimental effect on children's educational outcomes (Gibbs et al., 2016). Family size negatively affects children's educational performance, including test results, grades, and overall educational achievement (Öberg, 2017).

2.3.3.3 Birth Order

Collins (2017) looked into the relationship between birth order and personality, and the results showed a statistically significant connection between first-born children and the attributes that are often associated with first-borns. Healey (2018) found that conscientiousness was more frequently assessed as a first-born trait than openness to experience, which was ranked as a second-born trait. On the other side, Van, Guerguis, and Kranmer (2017) discovered that while there were multiple sex and birth order effects

in participants' judgments of their sibling relationships, there were no significant sex and birth order effects on participants' self-perceptions of personality characteristics.

2.4 Characteristics of Academic Performance

The purpose of this section is to examine the academic performance is characterized and conceptualized. This section begins with a review of the academic performance specifically used in the higher education field. This is followed by the analysis of the indicators of the dominant assumptions of the features of academic performance.

2.4.1 An Overview of Academic Performance

One of the university's main objectives is to raise students' academic performance as shown by test scores (Chukwuemeka, 2021). According to Machebe et al. (2017), a test's grade point average (GPA) was used to gauge a student's academic success. Masrom and Usat (2015) define academic performance as the expected GPA for the current semester and the CGPA/GPA reported by students for the previous semester. The grade point average (GPA) is an indicator of a student at an institution of higher learning's overall academic performance. According to Muthee and Murungi (2019), academic performance is the percentage of a student's score earned in each of the five required courses after two terms of instruction in normal eighth grade. According to Rasheed et al. (2020), the CGPA is used to evaluate a student's academic performance and is connected to accomplishment in a particular class or subject. The sole indicator of student success utilized in the texts is GPA, which is also the indicator of student achievement that is most commonly employed in academic outcomes literature.

A theory of performance (ToP) is helpful in many learning environments because high-level performances result in deserving success. Elger (2015) defined performance

as a complicated series of activities including the integration of skills and knowledge to generate a meaningful result. Learning in conventional contexts like classrooms, workshops, and other learning environments is influenced by the notion of performance. Using the examination of student academic performance from this study as a foundation, the theory of performance will be used in a conventional setting for classroom instruction.

2.4.2 Indicators of Academic Performance

The indicator utilized by Turner et al. (2009) was the students' self-reported GPA. Additionally, Núñez et al. et al. (2015) used information from each school's secretariat on the academic performance of the pupils (report card grades). According to Zahedani et al. (2016), the academic performance was evaluated using the GPAs of senior students in a range of disciplines of study at Shiraz University of Medical Sciences in the academic year 2014. Lee et al. (2012) used student grades as an indication of performance by employing the self-report approach.

According to Bacon (2011), academic achievement was centered on grades, standardized test results, and general academic performance and competence. The grade point average (GPA) and the Iowa Test of Basic Skills (ITBS) were utilized by the researcher to assess academic achievement. In a study, Nisar and Dogar (2017) explored the factors that influence students' academic achievement at the secondary school level. They focused on the effects of three independent variables, including school climate, study skills, and socioeconomic status, on the dependent variable, academic performance, which was measured using students' achievement scores from the annual results of their secondary school examinations. Machebe et al., (2017) researched the impact of parental level of income on student's academic performance in high school in Japan. The researcher focused on the socioeconomic status factor, such as parent's income and the impacts of family relationships on the student's academic performance.

In addition, academic performance was measured by using performance on tests, performance in coursework, and performance on examinations (Kyoshaba, 2009). In this research study, the academic performance indicator is going to employ the performance in the test, coursework, and examinations by undergraduates self-rating. There are three main indicators for performance: performance in tests; (2) performance in coursework; and (3) performance in examinations. Below are details.

1. Performance in the test: The test is used to examine a student's knowledge of what the student knows or learns; it measures the level of understanding in the class (Kyoshaba, 2009). The test was conducted at the end of the lesson on the class performance in coursework.

2. Performance in coursework: The performance in coursework is one of the key indicators to measure student performance in this study. Students who are studying at the undergraduate level must complete all the coursework requirements from the university.

3. Performance in Examination: There are two examinations every semester for undergraduates. The university requires the students to take the midterm and final exams; it is a centralized examination at the university campus.

2.5 Characteristics of Personality

This section explores the characteristics of personality by overviewing its related theory and concept. This is followed by the determination of McCrae and Costa's Five-Factor.

2.5.1 An Overview of Personality

According to Fung and Durand (2014), personality is the essence of a person. Knowing one's personality might make it easier to explain and forecast what a person will do and decide. Diener and Lucas (2019) claim that personality characteristics represent people's distinctive cognition, feelings, and action patterns. An individual with

a high extraversion score is anticipated to be gregarious across different circumstances and throughout time. Personality traits reflect consistency and stability. The word “personality,” according to Schultz & Schultz (2016), derives from the Latin *persona*, or the mask that people put on in front of others. However, psychologists view personality as encompassing much more than just outward manifestations and including all those relatively enduring traits or characteristics that give a person's behavior some consistency.

According to Ewen (2014), personality refers to a person's enduring traits that are important to them and continue to have a substantial impact on their behavior. There are both visible and invisible facets of personality, as well as conscious and unconscious facets. Kinicki & Williams (2018) contend that the characteristics that emerge from the combination of your genes and environment make up your personality. The persistent psychological qualities and observable behavioral features that constitute a person's identity are referred to more specifically as personality. The major five personality qualities are extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience.

Kinicki and Fugaet (2017) claim that personality is the stable combination of a person's physical, behavioral, and mental traits that gives them their unique identities. There are many traits that children get from their parents, and according to Gruseck and Hastings (2007) stated socialization is the process through which a youngster creates his own personality. Feher and Vernon (2021) described the “big five” personality traits, which have been connected to a range of psychological outcomes, including job satisfaction, relationship satisfaction, leadership, internet addiction, educational outcomes, and health outcomes. This highlights the significance of this personality model in our comprehension of human nature.

2.5.2 McCrae and Costa's Five-Factor

McCrae and Costa (2013) offer five physiologically based factors: neuroticism (emotional stability), extraversion, openness, agreeableness, and conscientiousness. These variables are consistent over time, prevalent across cultures, reliable predictors of feelings and actions in a variety of circumstances, and they have a wide range of behavioral effects (Schultz & Schultz, 2016). According to Wright and Quick (2009), there is a correlation between positive psychological capacities and both individual and organizational performance. According to Kling et al. (2003), extraversion and openness to experience predict increases in good affect in the classroom, while neuroticism and a lack of openness to experience predict increases in negative affect.

2.5.2.1 Openness

Characteristics related to the openness factor include broad interests, creativity, intelligence, and originality. People with lower levels of openness are portrayed as ordinary, straightforward, shallow, and stupid (John, 1990). According to Costa & McCrae (1995) and Bastian et al. (2015), teachers who exhibit higher degrees of openness also tend to work in high-need school situations and experience their emotions more intensely. Also, people who appreciate variety are distinguished from those who have a desire for closure and find comfort in their associations with familiar people and things by their openness to experience. People with a high openness score are more likely to be creative, innovative, curious, and liberal, as well as like diversity. Those who score low on openness to experience, on the other hand, are usually conservative, down-to-earth, and lack curiosity.

2.5.2.2 Extraversion

Talkativeness, assertiveness, activity, and energy are traits associated with extraversion. People who have low levels of extraversion are frequently mute, quiet, shy,

and reserved (John, 1990). Students in the classes of teachers who exhibit high degrees of extraversion are said to know, support, and be friendly with one another (Kent & Fisher, 1997). According to Rockoff et al. (2008), students' arithmetic results and teachers who exhibit high levels of extraversion have a weakly positive association. In short, affectionate, jolly, talkative, joiners, and fun-loving people tend to score high on extraversion. Low extraversion scorers, on the other hand, are more likely to be reserved, quiet, loners, meek, and unable to convey intense emotion.

2.5.2.3 Conscientiousness

People with the conscientiousness attribute are ordered, regulated, organized, ambitious, goal-oriented, and self-disciplined. People who have a high conscientiousness score are generally diligent, conscientious, punctual, and persistent. People who score low on conscientiousness, on the other hand, are unorganized, negligent, sluggish, and aimless, and are more prone to abandon a project when it becomes tough. Additionally, John (1990) asserts that people with higher degrees of conscientiousness apply what they have learned in an educational setting (Cheng & Zamarro, 2016). And, Pandey and Kavitha (2015) claim that teachers' conscientiousness predicts the educational outcomes of their students. Highly motivated individuals put what they have learned in school into practice (Cheng & Zamarro, 2016).

2.5.2.4 Emotional Stability

People who score high on neuroticism or emotional stability are more anxious, temperamental, self-pitying, self-conscious, emotional, and stress-prone. Those with low emotional stability tend to be calm, even-tempered, self-satisfied, and emotionless (John, 1990).

2.5.2.5 Agreeableness

Soft-hearted people are distinguished from ruthless ones by their agreeableness traits. Despite John's (1990) assertion people who have a high agreeableness score are more trusting, generous, yielding, accepting, and good-natured. Bastian et al. (2015) found those who score low in this category are suspicious, stingy, unfriendly, irritable, and critical of others.

Table 2.1

Costa and McCrae's Five-Factor (Source: Feist et al., 2018)

Personality	Attributive Representation	
	High Score	Low Score
Extraversion	Affectionate, joiner talkative, fun-loving active, passionate	Reserved, loner, quiet, sober, passive, unfeeling
Neuroticism	Anxious, temperamental self-pitying, self- conscious, emotional, vulnerable	Calm, even-tempered, self- satisfied, comfortable, unemotional, hardy
Openness	Imaginative, creative, original, prefers variety, curious, liberal	Down-to-earth, uncreative, conventional, preferred, routine, uncurious, conservative
Agreeableness	Softhearted, trusting, generous, acquiescent, lenient, good-natured	Ruthless, suspicious, stingy, antagonistic, critical, irritable
Conscientiousness	Conscientious, hardworking, well- organized, punctual, ambitious, persevering	Negligent, lazy, disorganized, late, aimless, quitting

As shown in Table 2.1, there was Costa and McCrae's (2013) Five-Factor including extraversion, neuroticism, openness, agreeableness, and conscientiousness. In each dimension, it is also explained the high and low scores of each key personality trait.

2.6 Previous Related Research Studies

This section is a review of previous research studies that have shed light on a series of issues on the nature of personality and academic performance. To recapitulate, this current study used all independent variables, such as the father's education, mother's education, father's occupation, mother's occupation, parent's income, family relations, size of the family, birth order, and family type to investigate the relationship with the student's academic performance and student's personality. The results of this study were compared with the previous research results to find out which research studies support this current research. Table 2.2 and Table 2.3 below showed the previous correlations study of previous authors about the academic performance and personality with father's education, mother's education, father's occupation, mother's occupation, parent's income, family relations, size of family, birth order, and type of family. The result of previous studies was found differently in terms of correlation result.

Table 2.2

Previous Correlation Study about the Student's Personality

No.	Variable	Researcher	Result with personality
1.	Father's education	Steinmayr et al. (2010)	Significant mediators of the relationship between parents' education and student's personality.
2.	Mother's education	Steinmayr et al. (2010)	Significant mediators of the relationship between parents' education and student's personality.
3.	Father's occupation	Mahalakshmi et al. (2015)	There was a significant affected on personality.
4.	Mother's occupation	Mahalakshmi et al. (2015)	There was a significant affected on personality.
5.	Parent's income	Mahalakshmi et al. (2015)	There was a significant affected on personality.
6.	Family relation	Zhang et al. (2018)	Parent-child relationships were significantly correlated with personality traits.
7.	Size of family	Zyrianova et al. (2013)	There was a relationship between family size and personality.

No.	Variable	Researcher	Result with personality
8.	Birth order	Ha and Tam (2011)	There was no relationship between birth order and personality.
		Zyrianova et al. (2013)	There was a relationship between birth order and personality.
9.	Family type	Yadav (2020)	The type of family is a significant influencing factor on personality.

Table 2.2 revealed the previous study of the home environment on students' personalities. Those studies were applied in various contexts; the results were explained differently.

Table 2.3

Previous Correlation Study about the Academic Performance

No.	Home environment	Researcher	Results with Academic Performance
1.	Father's education	Davis-Kean (2005)	Predict the academic outcome.
		Crede et al. (2015)	There is no association between academic achievement.
		Idris et al. (2020)	Positively contributes to their children's academic achievement.
2.	Mother's education	Davis (2005)	Predicts the academic outcome.
		Crede et al. (2015)	Moderator of the association between academic achievement.
		Idris et al. (2020)	Positively contributes to their children's academic achievement.
3.	Father's occupation	Saifi and Mehmoon (2011)	Significantly influence students' achievement.
		Usaini and Abubakar (2015)	Great influence on students' academic performance.
		Odoh et al., (2017)	Significantly influenced students' academic performance
4.	Mother's occupation	Saifi and Mehmoon (2011)	Significantly influenced students' achievement.
		Usaini and Abubakar (2015)	Great influence on students' academic performance.
		Odoh et al. (2017)	Significantly influenced students' academic performance
5.	Parent's income	Machebe et al. (2017)	Impact on student academic achievement.
		Davis-Kean (2005)	Predicts the academic outcome.
		Suleman et al. (2012)	Contributes more to academic performance.

No.	Home environment	Researcher	Results with Academic Performance
6.	Family relation	Li et al. (2022)	Relationships significantly and positively affected academic performance.
		Carmona et al. (2020)	Parent-child relationships can directly predict a student's academic performance.
		Obeldobel and Kerns, (2021)	Parent-child relationships directly affect academic performance.
		Lansangan et al. (2015)	There is no significant relationship.
7.	Size of family	Muola (2010)	There was a 26% significant correlation between family size and academic achievement.
		Marks (2006)	Association between family size and educational outcomes.
8.	Birth order	Bonesrønning and Massih (2011)	Highly significant birth-order effects on students' academic achievements.
		Ha and Tam (2011)	Birth order and academic performance were not statistically significantly correlated.
		AlSaleh et al. (2021)	There was no significant effect between birth order and academic performance.
9.	Family type	Marks (2006)	There was significant effect of family type on students' achievement.
		Riala et al. (2003)	Association between family background such as family type on educational achievement.

Table 2.3 shows the previous studies of the home environment on student academic performance in different contexts. Among the previous studies, the researchers found different results for each variable. For instance, Davis-Kean (2005) proved the father's education predicted the academic outcome of the children.

2.7 Research Gaps

There were several authors who conducted their research studies by using different independent and dependent variables. However, this research study aims to

differentiate from previous research and fill research gap suggestions. Kakkar (2016) proposed that further research concentrates on an adolescent group of students any other age group can be taken for the study which shall help to find out the difference in the impact of the home environment on academic achievement. In addition, Morrissey et al., (2014) recommended for study of how family income affects children's achievement. Moreover, Ford (2013) suggested conducting a future study on a different level such as elementary, high school levels, and college to provide better empirical evidence of the relationship between socioeconomic status and the academic performance of culturally diverse students. Weiser and Riggio (2010) said that further research should focus on the overall model of family environment, self-efficacy, and academic achievement. Many family variables may influence the research, such as higher levels of parental relationships, and parent involvement. According to the suggestions and to fill the gap in the previous study, this research study selects the home environment, academic performance, and personality traits as the study variables conducted conduct in the higher level of education for undergraduate students.

2.8 An Overview of Higher Education in Cambodia

Cambodia's context of this current study is provided briefly. Cambodia is a tiny, impoverished nation in Southeast Asia that is in change. It has 181,035 km² in total land area. Thailand (803 km) and Laos (541 km) border the country on the north, Vietnam (1228 km) borders it on the east and southeast, and Thailand (443 km) and the Gulf of Thailand border it on the west. The two main tropical seasons set the climate apart. Mid-May is when the dry season starts, and it concludes in mid-September or early October. From early November to March, there is a wet season. The coldest month is January, and the warmest month is April. The temperature is about 25 °C on average. Rarely does the

minimum temperature drop below 10 °C, although the maximum temperature is over 32 °C.

Natural resources found in abundance in Cambodia include forests, minerals, inland and coastal fisheries, a wide range of fertile soils, and abundant biodiversity (Hang, 2012). Other natural resource potential includes hydropower, iron ore, manganese, phosphate, gold deposits, gemstones, offshore oil and gas deposits, and more. A lot of these are still mostly unexplored.

2.8.1 Development of Higher Education in Cambodia

In Cambodia, a variety of internal and external factors have influenced and impacted higher education. Up until the early 1990s, it was characterized by uneven development and provision, sporadic civil war crises, and political regime changes. With the founding of the National Institute of Law, Politics, and Economic Sciences in the late 1940s, higher education in Cambodia got underway (Chandler, 1993, 2008). The institution was tasked with preparing government professionals for the French colonial authority of Cambodia, according to Chandler (1993, 2008). Students received French training for two years, studying for two hours every night (Fergusson & Masson, 1997). A somewhat different date for its establishment appeared to be provided by scholars. The institution was formed in 1949, according to Can (1991), however, Fergusson and Masson (1997) claimed it was founded in 1948, while Chandler (1993) indicated it was established in 1947. It is evident that contemporary higher education has only been a part of Cambodian society for roughly fifty years.

Before this, exceptional and affluent Cambodian students who wanted to continue their education were compelled to go to France or Vietnam. Only people in the highest echelons of society (usually members of the royal family) had access to these studies, which were exceedingly limited. By 1939, roughly a dozen Cambodians had received

tertiary education overseas, as Chandler (1993) noted. About 100 Khmer students were enrolled in French schools by 1950 (Ayres, 2000); Chet, 2009, while many more had taken professional and technical courses in Hanoi, Vietnam (Osborne, 1994; Chet, 2009).

Because of the country's political transitions, higher education in Cambodia has gone through five crucial phases between the 1950s and 2015. It then outlined the developments in higher education during each of the five phases: (1) Higher education in post-French colonial Cambodia (1953-1970); (2) Higher education during Lon Nol's Regime (1970-1975); (3) Higher education under the Khmer Rouge (1975-1979); (4) Higher education after the Khmer Rouge (1979-1991); and (5) Higher education in post-conflict Cambodia (1991-2015).

2.8.1.1 Higher Education in post-French Colonial

After helping Cambodia achieve independence from France in 1953, Prince Norodom Sihanouk served as its leader for more than a decade. Cambodia was often portrayed as a Southeast Asian "Camelot" or an "oasis of peace" (Chandler, 1993), and it was considered the golden age of post-independence under his leadership as the founder of the modern Cambodian nation-state (Howes & Ford, 2011). The government made increasing education a primary policy objective, allocating almost 20% of the national budget to the sector (Chandler, 1993). Consequently, it made significant progress in the field by establishing a large number of modern school buildings, teacher training facilities, and higher education organizations.

When the institution of Phnom Penh, Cambodia's first institution, was founded in 1963, its first vice-rector was a Khmer citizen (Duggan, 1996). The university became well-known as a Francophone institution, and its graduates were recognized by French universities (Howes & Ford, 2011). The number of higher education institutions in Cambodia increased significantly after the founding of this first university. According to

the Ministry of Education, Youth, and Sport (Pit & Ford, 1994), six universities were founded in 1965 alone: The People's University, the Royal Technical University, the Royal University of Fine Arts, the Royal University of Kompong Cham, the Royal University of Takeo-Kampot, the Royal University of Agriculture Science, and the Royal University of Kompong Cham. During the 1969–1970 school year, there were nine universities in Cambodia, with more than 48 faculty members and about 11,000 students (Can, 1991).

According to Ayres (2003) and World Book Inc. (2006), by the end of the 1960s, Cambodia had some of the best educational systems in the developing world. There were increased opportunities for young Cambodians to attend school, receive training, and develop the skills necessary to assume economic, political, and technical roles (Chandler, 1993; Clayton & Yok, 1997; Osborne, 1994). Previously, many of these roles had been held by French nationals (Osborne, 1994).

Just as importantly, poor management and quality problems were part of Sihanouk's quick growth in higher education institutions. The lack of qualified university lecturers was one of the main reasons why “standards in most of the newly established faculties were deplorably low,” (Osborne, 1994, pp. 268-269). Opportunities in the private sector were limited, and the growth of the labor market was slower than that of the educational system (Ear, 1995). According to Osborne (1994), one career path open to Cambodian university graduates during Sihanouk's tenure was becoming professors themselves. But professorships were extremely competitive, and every year a large number of graduates were rejected (Osborne, 1994).

2.8.1.2 Higher Education during Regime of Lon Nol

Prince Norodom Sihanouk was overthrown by his Prime Minister, Lon Nol, in 1970 while on a formal state visit to Russia. For five years, Lon Nol ruled Cambodia with

U.S. military and financial assistance. Nevertheless, the Communist movement, with which Sihanouk joined himself following his fall, expanded its dominance over Cambodia from the start of Lon Nol's rule (Chandler, 2008). In addition to American aircraft bombardment and the Vietnam War in neighboring Vietnam that extended across Cambodia's eastern border, combat caused extensive damage to the country's agricultural areas.

The new government did not consider tertiary education a national priority, in contrast to the previous one. Conversely, it asserted that a large number of secondary and tertiary graduates were not necessary to meet the labor demands of the Cambodian economy (Ayres, 2000). The higher education system, which had grown quickly during the previous 20 years, therefore drastically cut back on its operations. During this period, no new institutes of higher learning were constructed. Worse, the battle destroyed the majority of the existing educational facilities. Throughout the 1970s, the bulk of Cambodia's schools and higher education institutions were relentlessly closed, abandoned, or destroyed due to the communist movement's increased grip over government territory (Can, 1991; Duggan, 1997; Pit & Ford, 2004). According to Duggan (1997), bombing and artillery had damaged half of the country's schools and universities by 1974. Education was left to drift with the tide of countrywide despair since the administration had lost interest in all national development initiatives (Ayres, 2000). A large number of the nation's educated elite left (Pit & Ford, 2004).

Higher education in Cambodia suffered greatly under Lon Nol's rule due to corruption, idleness, rivalry, factionalism, poor management, and dejection (Ayres, 1997). According to the analysis of Fergusson and Masson (1997), teacher preparation programs and higher education were hardly present at this time. The following years of

Lon Nol's Republic did not see an improvement in the disruption to schooling brought on by the start of this civil upheaval in the late 1960s.

2.8.1.3 Higher Education under the Khmer Rouge

After overthrowing Lon Nol's government in 1975, the Khmer Rouge, led by Pol Pot, who was educated in France, controlled Cambodia with devastating results until January 7, 1979. As soon as the Khmer Rouge took power, they began to undermine the social, political, economic, and cultural underpinnings of the preceding society (Quinn, 1989). Quinn (1989) claims that they established a communist state that relied solely on agriculture. In fewer than four years, the Khmer Rouge regime transformed Cambodia into a "killing field" where about two million people died from malnutrition, sickness, exhaustion, overwork, or execution (Chet, 2009).

According to Ayres (2000), the whole higher education system was left in ruins after already suffering from the effects of material and human damage under Lon Nol's administration. The system in Cambodia was described as "at a virtual standstill" (Vickery, 1984), "abolished" (Ayres, 2000; Duggan, 1996; Pit & Ford, 2004), "completely destroyed" (Can, 1991), and "completely devastated" (Fergusson & Masson, 1997) by academics who researched the country under the Khmer Rouge.

According to Kiernan (1985), Can (1991), Pit and Ford (2004), Ayres (2000), and others, the Sihanouk government's achievements were destroyed, abandoned, and/or turned various universities and schools into factories for producing grenades, shells, and other weapons, as well as granaries, reeducation camps, prisons, stables, and slaughterhouses. In Phnom Penh, for example, a high school was transformed into S-21, the country's infamous genocide museum, where 14,000 prisoners were held, tortured, and finally put to death (Kiernan, 1985). According to Clayton (1998), the University of Phnom Penh, which was the nation's first university, was also converted into a farm.

Libraries, labs, facilities, equipment, and learning and teaching materials were either destroyed or neglected.

The Khmer Rouge suggested an alternative educational system in order to establish a new social structure centered on an agrarian, communal society. In factories and cooperatives, they provided basic education services that allowed pupils to learn for two to three hours each day while simultaneously gaining experience with manual labor (Vickery, 1985; Clayton, 2005). However, Clayton (2005) recognized that because many people were so overworked, their attendance at these classes varied greatly across the nation and most likely did not exist at all.

2.8.1.4 Higher Education after the Khmer Rouge

On January 7, 1979, the Khmer Rouge was driven out of Phnom Penh after almost four years of ruthless reign. In Cambodia, a new government backed by the Communist bloc led by the Soviet Union came to power. Cambodia was a communist nation backed by Vietnam and the former Soviet Union from 1979 until 1991. There was unimaginable devastation and a ruined state of higher education. There were only roughly 300 postsecondary-educated individuals in Cambodia in 1979 (Chet, 2009). Later, many of them left the nation. The Khmer Rouge had destroyed 90% of all educational facilities, including libraries, equipment, and supplies (Clayton, 1998; Chet, 2009).

For the new government, the challenge of re-establishing the national higher education system was daunting due to the legacy of trauma, chaos, and spectacular destruction (Ayres, 2000; Chet, 2009). Nonetheless, in the late 1970s and early 1980s, Cambodia was able to reestablish a number of universities in Phnom Penh with assistance from the Soviet Union and Vietnam (Ayres, 2000). Higher education expansion was sluggish and unsystematic due to the absence of institutional and physical facilities outside of Phnom Penh, which also left the industry highly fragmented (Duggan, 1996).

The government's failure to prioritize higher education and technical training as policy was another factor contributing to this delayed progress (Ayres, 2000). It dedicated 40% of the yearly budget to defense and needed all of its funds for military expenditures (Duggan, 1996; Chet, 2009).

Table 2.4

Universities Founded Right after the Khmer Rouge's Demise

No.	Institution	Date Established/Reopened
1.	Royal University of Phnom Penh	1960 [1980]
2.	Institute of Technology of Cambodia	1964 [1981]
3.	Royal University of Agriculture	1964 [1984]
4.	Royal University of Fine Arts	1965 [1979]
5.	National Institute of Business	1979
6.	Faculty of Medicine and Dentistry	1979
7.	University of Health Science	1980
8.	Institute of Economics	1984

Source: Adapted from Clayton (2010)

Higher education at this time was modeled after the Soviet system. The system was set up and separated into faculties and specialized institutes (Pit & Ford, 2004). Clayton (1995) stated that its primary goal was to provide good political and technical training and follow the objectives of socialism. According to Ayres (1997), the primary purpose of higher education institutions was to prepare cadres for employment in the civil service. According to Ayres (1997), students were entitled to a government-appointed job upon graduation.

The Khmer Rouge killed many Cambodians, and the nation mostly relied on lecturers or "experts" from the Soviet Union, Vietnam, and other Eastern Bloc nations to replace them (Clayton, 1998). Vietnamese and Russian were the most often used languages of teaching at Cambodian universities and institutions by the middle of the 1980s, according to Ayres (2000). High dropout and repetition rates, a low quality of standardized curriculum (Collins, 2009), substantial fragmentation, a lack of coordination in policy and programming (Neth & Wakabayashi, 2001), and a ministry lacking the

qualifications to effectively manage the system (Ayres, 2000) were other obstacles to progress in the Cambodian higher education sector.

2.8.1.5 Higher Education in Post-conflict

In Cambodian history in general and the growth of the country's higher education sector in particular, the years 1991–2015 are considered pivotal. In order to put an end to the civil war in Cambodia, the parties to the conflict decided to sign the Paris Peace Accords in 1991. Then, in 1993, under UN supervision, Cambodia adopted a democratic model. According to the social and political shifts that occurred in Cambodia after 1993, the country's higher education system has undergone a swift transition and is now increasingly influenced by market pressures (Chet, 2009; World Bank, 2012). Consequently, Cambodia has modified its higher education system in a number of ways (Innes-Brown, 2006; Pit & Ford, 2004).

2.8.2 Higher Education Goals in Cambodia

The Royal Government of Cambodia (RGC)'s ongoing commitment to achieving the objectives it set for the higher education subsector has been reflected in policy revisions. These primary objectives center on the supply of skilled human resources for the labor market with the purpose of enhancing social and economic development (MoEYS, 2014). The last fifteen years have seen this overarching goal become a policy priority. The 2004 “Rectangular Strategy,” a government development roadmap for Cambodia, has emphasized higher education as a catalyst for development in addition to the Constitution, which gives every Cambodian the right to high-quality education at all levels, including higher education (RGC, 2013b). According to RGC (2013b), the government is committed to improving its quality and aligning it with international norms.

Three major policy objectives for higher education institutions (HEIs) have been adopted by the RGC in order to accomplish this. To assure inclusion for social justice and economic growth in Cambodia, the main priority goal is to promote or extend higher education enrollment equity and access. The specific goal of this strategy is to boost the involvement of students who face financial and social obstacles to pursuing higher education, such as underprivileged students, female students, students from rural areas, and exceptional students. At the national and system levels, the second goal is to increase the quality of higher education (teaching, learning, and research) and its relevance (MoEYS, 2013). Since the quality of higher education has suffered as a result of Cambodia's recent rapid development of the system, this priority is crucial. The development of institutional management and staff capability, including both teaching and administrative personnel, is the third policy objective for enhancing higher education in Cambodia. The RGC has committed to addressing the deficiencies by means of incentives and training, as well as financial and structural changes that allow for increased operational independence for institutions of higher learning (MoEYS, 2013).

2.8.3 Current Higher Education System in Cambodia

This section lists some of the main elements of the existing system. These include the kinds and quantity of universities, whether private universities exist, the governance structure, the kinds of degrees and subjects offered, the faculty, and the enrollment of students.

2.8.3.1 Types and Numbers of HEIs

Universities and institutes are the two categories of higher education institutions in Cambodia (RGC, 2007). According to RGC (2007), a university is a generalist establishment that is permitted to award bachelor's, master's, and doctoral degrees, among other higher education credentials. There are requirements that must be fulfilled

in order to register as a university. According to these requirements, the university must have five main academic programs and a number of subsidiary faculties. The humanities (art, literature, and languages), sciences (mathematics and scientific sciences), and social sciences are the three subjects that are required to be studied. The majority of higher education programs in Cambodia are offered by universities (MoEYS, 2024).

There were 189 higher education institutions nationwide (a 57 percent increase), with 79 governmental and 110 private institutions spread throughout 25 capitals and provinces (MoEYS). Seventeen ministries and institutions were in charge of overseeing all of the universities.

Table 2.5
Statistics of HEIs under the Supervision of Line Ministries and Institutions

No.	HEIs	State Institutions			Private Institutions			Grand Total
		Base	Base	Total	Base	Branches	Total	
1.	Education, Youth and Sport	17	3	20	73	37	110	130
2.	Ministry of Labor and Vocational Training	37	0	37	37	9	46	83
3.	Ministry of National Defense	5	0	5	0	0	0	5
4.	Ministry of Cult and Religion	3	2	5	0	0	0	5
5.	Ministry of Agriculture, Forestry and Fisheries	3	0	3	0	0	0	3
6.	Ministry of Health	2	0	2	0	0	0	2
7.	Ministry of Culture and Fine Arts	1	0	1	0	0	0	1
8.	Ministry of Interior	1	0	1	0	0	0	1
9.	Office of the Council of Ministers	1	0	1	0	0	0	1
10.	Ministry of Public Works and Transport	1	0	1	0	0	0	1
11.	National Bank of Cambodia	1	0	1	0	0	0	1
12.	Ministry of Social Affairs Veterans and Youth Rehabilitation	1	0	1	0	0	0	1
13..	Ministry of Mines and Energy	1	0	1	0	0	0	1
14.	Ministry of Posts and Telecommunications	2	0	2	0	0	0	2
15.	Ministry of Economy and Finance	1	0	1	0	0	0	1
16.	Ministry of Land Management, Urban Planning and Construction	1	0	1	0	0	0	1
17.	State Secretariat for Civil Aviation	1	0	1	0	0	0	1
Total		79	5	84	110	46	156	240

Source: Adapted from MoEYS (2024, p.103)

There were 90 higher education institutions spread over 21 capitals and provinces that were overseen by the MoEYS. Of them, 17 were public and 73 were private, with 40 branches. Thirteen public and eighteen private HEIs made up the fifty-one higher education institutions offering Master's degree courses, and twenty-five fixed higher education institutions offered doctoral degree courses (MoEYS, 2024). The MoEYS oversaw 98 public and private HEIs in the academic year 2022–2023, including 37 with Associate degrees, 32 with Bachelor's degrees, 22 with Master's degrees, 7 with doctoral degrees, and one newly established major (MoEYS, 2024).

Any higher education establishment that provides one or more disciplinary fields of study is considered an institute (RGC, 2007; UNESCO, 2010). Cambodian institutions are vocationally specialized establishments that mostly offer associate degree programs to students who failed the Grade 12 leaving exam, according to the World Bank (2010). There are currently 31 educational and research institutions in Cambodia, 11 of which get governmental funding (Mak, 2008). Some technical schools also grant degrees for higher education. A technical institute tends to incorporate a greater practical component into its studies, particularly fieldwork and on-the-job training, which is the primary distinction between it and a university.

According to Mak (2008), schools and academies are actually included in Cambodian higher education. These higher education establishments stand out due to the fact that the MoEYS has no authority over them. According to Mak (2008), the Ministry of National Defense oversees the School of the Army, while the Ministry of Agriculture, Fishery, and Forestry runs two agricultural schools. There are two academies in Cambodia: The Academy of National Police and the Royal Academy of Cambodia. Currently, the Royal Academy of Cambodia offers graduate degrees in a number of subjects under the direct supervision of the Council of Ministers, in addition to its required

research and think-tank duties. Established by the Ministry of Interior, the Academy of National Police provides graduate and undergraduate courses in addition to its training mission (Mak, 2008).

Several features and modalities are combined in the current framework of Cambodia's higher education system. Scott (1995) presented five models in his typology: systems that are dominated by universities, dual systems, binary systems, unified systems, and stratified systems, according to this typology, it can be claimed that the dual, binary, and stratified systems all have some form in the higher education system in Cambodia. Both professional programs and academic studies are included in the system. It features multidisciplinary universities like the Royal University of Phnom Penh and the University of Cambodia, as well as monodisciplinary universities like the University of Health Science and the Royal University of Agriculture. Research activities are also housed in research institutes like the Cambodian Agricultural Research and Development Institute.

Particularly in the private sector, the number of institutions of higher learning has grown significantly. As a result, young Cambodians now have more options for higher education and a greater range of institutions.

2.8.3.2 Private HEIs

One may argue that the private higher education industry has been significantly contributing to the social and economic development of Cambodia through its rapid growth, diversity, and expansion (Chet, 2009; Innes-Brown, 2006; Neth, 2009; World Bank, 2010). There are currently 110 private HEIs under the supervision of the MoEYS (MoEYS, 2024), and in total of 156 HEIs were operated throughout the nation, just over ten years after the first private university was founded (MoEYS, 2024).

More Cambodians (including employees of the public, private, and civil society sectors) are now able to pursue higher education degrees and/or improve their credentials

and abilities thanks to these private HEIs (MoEYS, 2024). A major factor in the decentralization of selected fields of study and program initiatives in the Cambodian higher education system up to the doctoral degree was the growth of the private sector, which also helped address the issue of an excess of social demand for higher education and lessened some of the pressures on the public sector (Neth, 2009).

Because they are profit-driven, private HEIs in Cambodia do not receive funding from the government. Tuition fees and money from other sources are their only sources of income. Large enrollments, high tuition costs (roughly \$450 USD for a Bachelor's degree to \$1,200 USD for a Doctorate), and the well-liked courses they offer—particularly in business administration, computer science, marketing, accounting, economics, and languages—have made these institutions financially viable despite the government's lack of funding. In Cambodia, private support for higher education has been remarkably high. For instance, more than 80% of the funding for higher education came from private sources, totaling \$42.36 million (MoEYS, 2024).

2.8.3.3 Degree Types and Fields of Study

Students in Cambodian universities are enrolled in a wide variety of degree programs, ranging from Associate's to Doctoral degrees in philosophy. To receive a degree, students must finish a predetermined number of credits. The Accreditation Committee of Cambodia (ACC) establishes the bare minimum of credits required for academic and professional programs:

- Associate degree (approximately 75 to 85 credits over two years),
- Bachelor's degree (120 credits over four years),
- Master's degree (45 credits over two years), and
- Doctor of Philosophy degree (45 credits and research over at least three years).

Nonetheless, it seems that many universities require a little more credit than ACC for Bachelor's degrees (HRINC, 2010).

2.9 Summary of the Chapter

In order for higher education in Cambodia to effectively address social and economic demands, innovative and workable reform initiatives must be developed. The selected literature related to the home environment as it affects to personality and academic performance of higher education students are theoretically and practically reviewed. The key concept definitions and theoretical foundations used in this current study are then presented as the backup data. The different theoretical characteristics of home environment, personality, and academic performance were respectively determined. The empirical previous research studies and research gaps are raised as the conceptual framework for the study. In Chapter 3, the research methodology to be followed in this study will be discussed.

CHAPTER 3: RESEARCH METHODOLOGY

Chapter 3 details the research approach selected for this research study. The chapter starts with a discussion of the research design. The chapter also includes details of the methods chosen for data collection. Further, the chapter provides information on the population and sampling procedures of the study. This chapter also presents the measures used to ensure the protection of human subjects. This chapter concluded with a discussion on data collection, data analysis procedures for the study, and ethical considerations.

3.1 Research Design

Prior to conducting a research study, several research design methodologies must be taken into account. With regard to the selection of research methods, mixed, qualitative, and quantitative approaches are the most often used research methodologies (Creswell, 2009). By analyzing the relationship between variables, quantitative research provides “a means for testing objective theories” (Creswell, 2009, p. 4). Also, Creswell (2009) said that the “process of gathering, evaluating, interpreting, and writing the study's results is part of the quantitative method” (p. 4). In contrast to quantitative research, qualitative research uses “individuals or groups ascribe to social or human problems” to discover meaning (Creswell, 2009, p. 4).

As discussed in the literature review chapter, the objectives of the current study are to compare variations in the three variables as they relate to demographics and look into any potential relationships between them (Independent, Dependent, and Mediating Variables). The most appropriate research approach is quantitative research. The study employs a quantitative research design, especially utilizing a correlational approach to investigate the relational and comparative research hypotheses among undergraduate students in Cambodia because it allows the researcher to evaluate and collect numerical

data (Ge & Wu, 2020). This methodology relies on logical and deductive reasoning obtained from the statistical data (Leedy & Ormrod, 2013). Generalized facts from the study were drawn to provide clear and logical explanations.

According to Saunders et al. (2003), quantitative research methods include numerical data that can be measured in order to assist in answering research questions. The quantitative approach is suitable for evaluating the hypotheses in order to offer empirical support and to use statistical analysis to provide answers to the research questions that were addressed. These correlations are investigated for size and direction. The demographic data of the participants is analyzed from a comparative quantitative standpoint, assessed collectively, and reported quantitatively (Creswell, 2015).

3.2 Population and Research Sample

3.2.1 Population

Before discussing the sample used for this research, it is important to clarify the term “population,” which is defined as a group of elements or cases, events, and people that conform to specific criteria or characteristics that researchers intend to study (Mertens, 2015). Cohen et al. (2007) have noted that the quality of a piece of research can be improved through the appropriate choice of methodology and instruments, as well as by the sampling strategy that it adopts. The total population of the study was 3,000 undergraduate students who were currently studying at one private university in Phnom Penh, Cambodia. They included freshmen, sophomores, juniors, and seniors in different academic years.

3.2.2 Research Samples

According to Tuckman (1999), the sample is a group of items, occasions, or individuals selected by researchers to gather data for the study. The purpose of sampling

is to avoid having to gather data from the entire population (Cohen et al., 2007). The research samples consisted of undergraduate students at a large private university in Phnom Penh. In terms of sample size, the formulation of Yamane (Yamane, 1967) was calculated, as shown below.

$$\text{Formula} \quad n = \frac{N}{1 + Ne^2}$$

Where, n= The sample

N= The size of the population

e= The precision or error of percentage point (0.10) = 10%

The confidence level 95%

According to Yamane (1967) formulation, the determination of the sample size representing the number of respondents could be easy. The total population consisted of 3,000 undergraduate students. The details of the sample selection and calculation are as follows:

$$n = \frac{N}{1 + Ne^2} = \frac{3,000}{1 + (3,000) \times (0.1)^2} = 96.77 \approx 100$$

As the calculation result, the required sample size was only 96 undergraduate students. In this sense, this research study randomly selected 100 undergraduate students as the surveyed samples for the research study, derived via stratified random sampling, and simple random sampling by drawing lots, respectively.

3.3 Research Instruments

In this research study, the Questionnaire of Demographic Characteristics (Parveen, 2007), the Family Relations (Hudsen, 1982), the Personality (Goldberg, 1999), and the Academic Performance (Kyoshiba, 2009) were adopted and employed (see Appendix A).

3.3.1 Development of the Surveyed Questionnaire

In the current study, the researcher modified the original questionnaire to be appropriate for undergraduate students. Hence, the research study employed a survey questionnaire as the instrument, which was divided into 4 parts: (1) Part A - Demographic Characteristics; (2) Part B - Family Relations; (3) Part C – Personality; and (4) Part D - Academic Performance (see Appendix A), as described in Table 3.1 below.

Table 3.1

The Originality and Development of the Surveyed Questionnaire

Instrument	Description	Number of Items	Adopted
Part A	Demographic Characteristics	17	Parveen (2007)
Part B	Family Relations	24	Hudsen (1982)
Part C	Personality	41	Goldberg (1999)
Part D	Academic Performance	5	Kyoshaba (2009)

As shown in Table 3.1 above, it reveals the originality and development of surveyed questionnaires used in this study. Part A refers to Demographic Characteristics, which was originally developed by Parveen (2007) and consisted of 17 items. In addition, Part B is about Family Relations. This part of the questionnaire was originally constructed by Hudsen (1982) and consisted of 24 items. Moreover, Part C concentrates on Personality with its 41 items and was originally developed by Goldberg (1999). Last, Part D was about Academic Performance with 5 items, which was originally developed by Kyoshaba (2009). Therefore, this study employed all four parts of the surveyed questionnaire that was originally developed by Parveen (2007), Hudsen (1982), Holdberg (1999), and Kyoshaba (2009), respectively. The following are the details of the research instrument according to each part listed above.

3.3.1.1 The Questionnaire of Demographic Characteristics

The Demographic Characteristics, developed by Parveen (2007), consisted of 17 items as mentioned in Table 3.1. The surveyed samples' responses to the questionnaire

were in short answers except in item 12 which was constructed in Multiple-choice format. This Questionnaire (Part A) was used to collect information concerning the faculty/school/college, year, father's education, mother's education, father's profession, mother's profession, family's monthly income, house, servant, transportation, facility, number of brothers and sisters, birth order, and type of family.

3.3.1.2 The Questionnaire of Family Relations

This Questionnaire (Part B) consisted of 24 items and it was used to collect the data related to Family Relations. The surveyed students responded by indicating their response using a 5-point Likert scale, which explains that 5 is such as "all of the time", 4 is for a "good part of the time", 3 is for "some of the time", 2 is "a little of the time", and 1 is for "none of the time". This Questionnaire was originally developed by Hudson (1982). This Questionnaire has good internal consistency, with its Cronbach's alpha of 0.82.

3.3.1.3 The Questionnaire of Personality

This Questionnaire (Part C) was about the Personality. In this sense, this Questionnaire has 5 subscales with 41 items: Openness (7 items), Extraversion (9 items), Conscientiousness (10 items), Emotional Stability (8 items), and Agreeableness (7 items). The surveyed students responded by indicating their response using a 5-points, which explained that 1 is for "very inaccurate", 2 is for "moderately inaccurate", 3 is for "neither accurate nor inaccurate", 4 is for "moderately accurate", and 5 is for "very accurate". This Questionnaire of the research instrument was originally developed by Goldberg (1999). The scale has good internal consistency, with the Cronbach's coefficient alphas for this Questionnaire being 0.792.

3.3.1.4 The Questionnaire of Academic Performance

This Questionnaire (Part D) is the last part of the research questionnaire - Academic Performance. Academic Performance was developed by Kyoshiba (2009) and was used as an indicator to measure undergraduate students' academic success. This Questionnaire had 5 main subscales including Lessons Tests, Course Work, Midterm, and Final Examination, Core and Compulsory Courses, and Grade Point Average (GPA). The Cronbach's alpha of this Questionnaire was found to be 0.778. It demonstrated convergent validity.

3.3.2 Translation Technique for the Surveyed Questionnaire

Moving on to the core of the validity of the surveyed questionnaire, four experts were chosen for the back-translated panel in order to determine its content validity after it had been translated into the Khmer language. The four experts were chosen in accordance with Brislin's (1986) recommendations to ensure a high degree of translation accuracy.

In international research contexts, such as cross-cultural psychology, international marketing, educational evaluations, quality-of-life research, and international nursing research, back-translation is a validation technique that is frequently employed (Tyupa, 2011; Son, 2018). The Master's and Ph.D. holders who had experience in teaching the English language were approached to translate the questionnaires from the English version to the Khmer language. In addition, the surveyed questionnaire was proofread and clarified for the accuracy of the wording and phrases by native speakers of the language.

To investigate the question items and after this surveyed questionnaire was back-translated and accomplished, the experts polished and reviewed all the statements in each dimension to ensure content validity in both Khmer and English. According to their background of education and experience in research, they were qualified in both English

and Khmer language. All reviewers mentioned some terms and phrases when comparing to English and Khmer versions to make sure they would not be confused with the English and Khmer versions of the research instrument. After the panel discussion, the final translated instrument was approved, and proceeded for the data collection the research-targeted university site.

3.3.3 The Validity and Reliability of the Surveyed Questionnaire

3.3.3.1 The Validity of the Surveyed Questionnaire

The validity of a measure, according to Bordens and Abbott (2018), is the extent to which it measures what you expect it to measure. Validity is the creation of solid evidence to show that the test interpretation corresponds to the intended application (Creswell, 2015). According to the previous researchers, they determined the validity of the questionnaires to ensure that they were intelligible, and this research study adopted their questionnaires. The content validity was carried out by four experts who hold Ph.D. degrees in the related fields and from diversified institutes (see Appendix B). In addition, the index of the “Item-Objective Congruence” (IOC), developed by Rovinelli and Hambleton (1977), was calculated for the survey questionnaires.

The IOC is a process used in test preparation to assess content validity at the item development stage. The evaluation of unidimensional items or items that evaluate certain skill composites is the only use for this measure. Test items are occasionally created as multidimensional evaluations or measures of several skill combinations in contemporary test production (Rovinelli & Hambleton, 1977). Moreover, the IOC points in calculations provided into three scales of rating for consistency and congruency of the items. All experts had to choose only one answer as the given mark from these three alternatives:

+1 refers to experts who are sure that this item truly measures the attribute.

0 refers to experts who are not sure whether or not the item measures the attribute.

-1 refers to experts who are sure that the item does not measure the attribute.

The IOC score was given by the four expert rating was a +1 rating for all the items in the survey questionnaire. Therefore, the survey questionnaire was approved for data collection. Theoretically and practically, total points for each item must have a consistency value equal to or above 0.50 (Rovinelli & Hambleton, 1977). After evaluation from the four experts, all items of the surveyed questionnaire were theoretically and practically approved according to the level of appropriateness. In doing so, the surveyed questionnaire could be used to measure the reliability through a pilot study.

3.3.3.2 The Reliability of the Surveyed Questionnaire

According to Bordens and Abbott (2018), a measure's reliability refers to its capacity to generate consistent findings when repeated measurements are taken under the same conditions. The term "reliability" refers to the stability and consistency of an instrument's scoring. When researchers apply the instrument numerous times at different periods, the scores should be almost identical (Creswell, 2015). Therefore, the current study conducted the pilot test to verify the reliability of the research instrument.

If an individual's scores were internally consistent across the items on the instrument, the instrument is reliable and accurate. Internal consistency is measured using the coefficient alpha (Creswell, 2015). To measure internal consistency, this study conducted the pilot test in order to calculate Cronbach's alpha based on Sharma (2016).

Table 3.2

The Extent of Reliability of Instrument Employed in this Study

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$\alpha > 0.5$	Unacceptable

Table 3.2 shows the coefficient of Cronbach's alpha, which had five levels of internal consistency such as excellent, good, acceptable, questionable, poor, and unacceptable.

3.3.4 Piloting the Surveyed Questionnaire

A pilot research is a tiny feasibility study that is used to test different components of the procedures that will be used in a larger, more comprehensive, or confirmatory investigation (Arain et al., 2010). The major goal of a pilot study is to prevent researchers from starting a large-scale investigation without sufficient knowledge of the methodologies proposed; in other words, a pilot study is undertaken to avoid the development of a fatal defect in a study that is both time and money consuming (Polit & Beck, 2017). A pilot study is a smaller version of the main or full-scale investigation (In, 2017). Lackey and Wingate (1997) also stated that the pilot study is tremendously helpful in determining the reliability and validity of the research instrument.

According to Sim and Lewis (2012), the sample size of a pilot study should be estimated in relation to the desired level of confidence and significance level of the analysis in the main study; at a high level of confidence, a pilot study of at least $n=30$ is recommended in many instances. Furthermore, considering a 95 percent confidence range, the suggested sample size for a pilot study is 55 (Cocks & Torgerson, 2013). The pilot study was conducted at the research site and consisted of 30 students who participated in this study (see Appendix D).

In this research study, the pilot surveyed questionnaire procedures follow the steps below in Figure 3.1. There were five steps in the pilot study procedure, such as explaining the instructions, conducting the demonstration, delivering the questionnaires, monitoring the respondents' activities, and collecting the questionnaire.

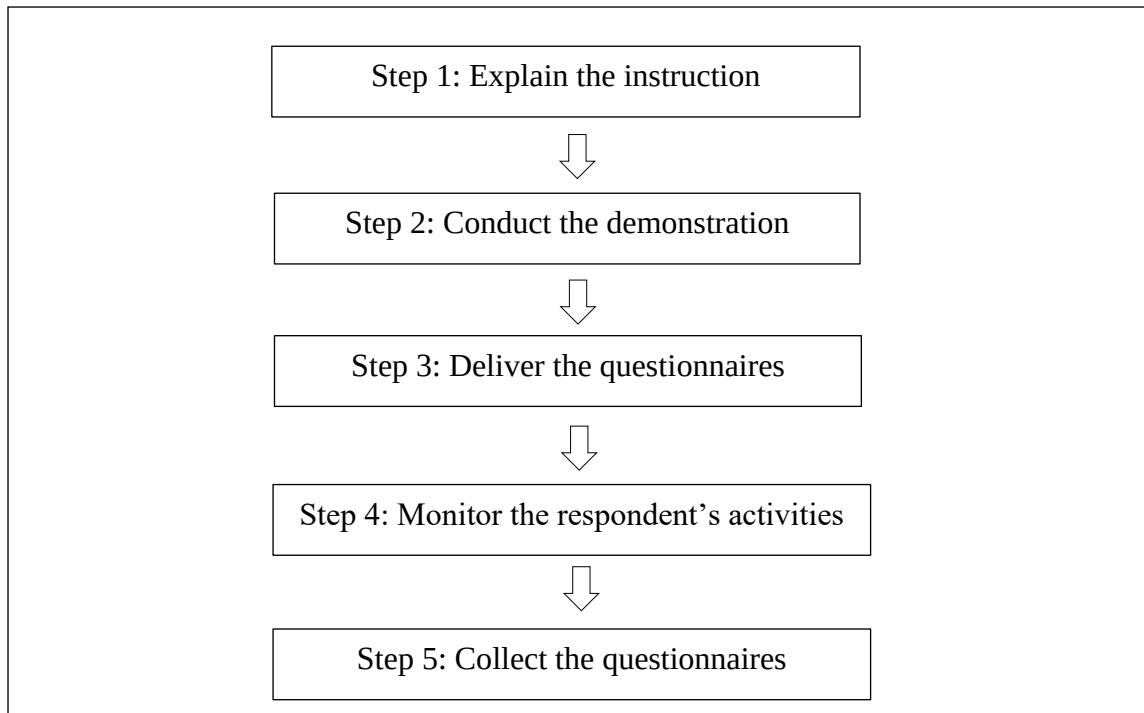


Figure 3.1: Procedures of the Piloting the Surveyed Questionnaire

As shown in Figure 3.1, it demonstrated the piloting surveyed questionnaire procedures. The researcher approached the surveyed samples at the research site. There were five steps in the pilot study procedure including explaining the instructions to the respondent, conducting the demonstration of all parts of the questionnaires, delivering the surveyed questionnaire to undergraduate students, monitoring the respondent's activities, and collecting the questionnaires from the students.

Table 3.3
Demographic Information of Pilot Study

Classification	Surveyed Students (n=100)		
	Frequency	Percentage (%)	Accumulative Percentage
Freshman	6	20	20
Sophomore	4	13	33
Junior	11	37	70
Senior	9	30	100
Total	30	100	100

Table 3.3 shows the demographic composition of students who were participants in the pilot study. There were four columns such as student, frequency, percentage (%),

and accumulative percentage. There were four types of students such as freshman, sophomore, junior, and senior. There were 6 (20%) freshmen, 4 (13%) sophomores, 11 (37%) juniors, and 9 (30%) seniors. This pilot study consisted of 30 respondents from a private university.

Table 3.4

Reliability, Internal Consistency, Cronbach's Alpha of the Surveyed Questionnaire

Part of Questionnaire	Number of Items	Sources	Existing Cronbach's Alpha	Pilot Study Cronbach's Alpha
B	24	Hudsen (1982)	0.82	0.81
C	41	Goldberg (1999)	0.79	0.80
D	5	Kyoshaba (2009)	0.77	0.85

Table 3.4 discusses the reliability of the research instrument. There are five columns as the type of instrument, the number of items, adapted from, existing Cronbach's alpha, and the pilot study Cronbach's alpha. As mentioned in the table, instrument B had 24 items that were adapted from Hudsen (1982); it had an existing Cronbach's Alpha of 0.82 and 0.81 for the pilot study. The Instrument of Part C consisted of 41 items adapted from Goldberg (1999), and it had 0.79 for existing Cronbach's Alpha with 0.80 for the pilot study Cronbach's Alpha. Finally, there were 5 items for instrument D; it had an existing Cronbach's alpha of 0.77 and a pilot study with 0.85 Cronbach's Alpha.

Table 3.5

Mean and Standard Deviation of the Surveyed Questionnaire

Part of the Questionnaire	Number of Items	Mean	Standard Deviation
B	24	3.36	0.76
C	41	3.28	0.86
D	5	2.44	0.50

Table 3.5, represents the mean and standard deviation of the research instrument. There are four columns such as instrument, number of items, mean, and standard deviation. The Instrument of Part B had a mean equal to 3.36 and a standard deviation of

0.76, the result mean and standard deviation of Instrument C were 3.28 and 0.86; lastly, the mean and standard deviation of Instrument D were 2.44 and 0.5.

3.4 Data Collection Procedures

As mentioned earlier, this study was a quantitative research design. Hence, primary data were collected via the survey method. An instrument, the surveyed questionnaire was developed and distributed to the surveyed undergraduate students at the research in Phnom Penh, Cambodia. The surveyed students were gathered through the completion of the Surveyed Questionnaire.

Permissions for conducting this study were given by the university leadership and targeted stakeholders, respectively. The surveyed undergraduate students were asked to provide their comments about whether the instructions were clear and if the question items were easy to answer. No items were modified. In the process of data collection, the researcher first gave a brief self-introduction to the students and outlined the purpose and process of the survey to establish trust and credibility. Then, the questionnaires were distributed to the surveyed students and it took about 30 minutes for them to complete it. The completed questionnaires were immediately collected only by the researcher to ensure their confidentiality. The study involved the surveyed students' personal views so voluntaries, privacy, and confidentiality were important ethical considerations.

By virtue of its importance, there were five steps in the pilot study procedure such as explaining the instruction, conducting the demonstration, delivering the questionnaires, monitoring the respondent's activities, and collecting the questionnaire. Firstly, the researcher explained the instructions to the respondent in each part of the research instruments from Part A to Part D to ensure that the students understood all the items. Secondly, the researcher conducted the demonstration for students to cross-check their

understanding of the process of response to the questionnaire. Thirdly, the researcher delivered the questionnaire to the respondent. Fourthly, the researcher monitored the activity while filling out the questionnaire and responded to all questions from the students. Lastly, the researcher collected the questionnaire from the students. In this research study, the summary of the research procedures follows the steps in Figure 3.2 below.

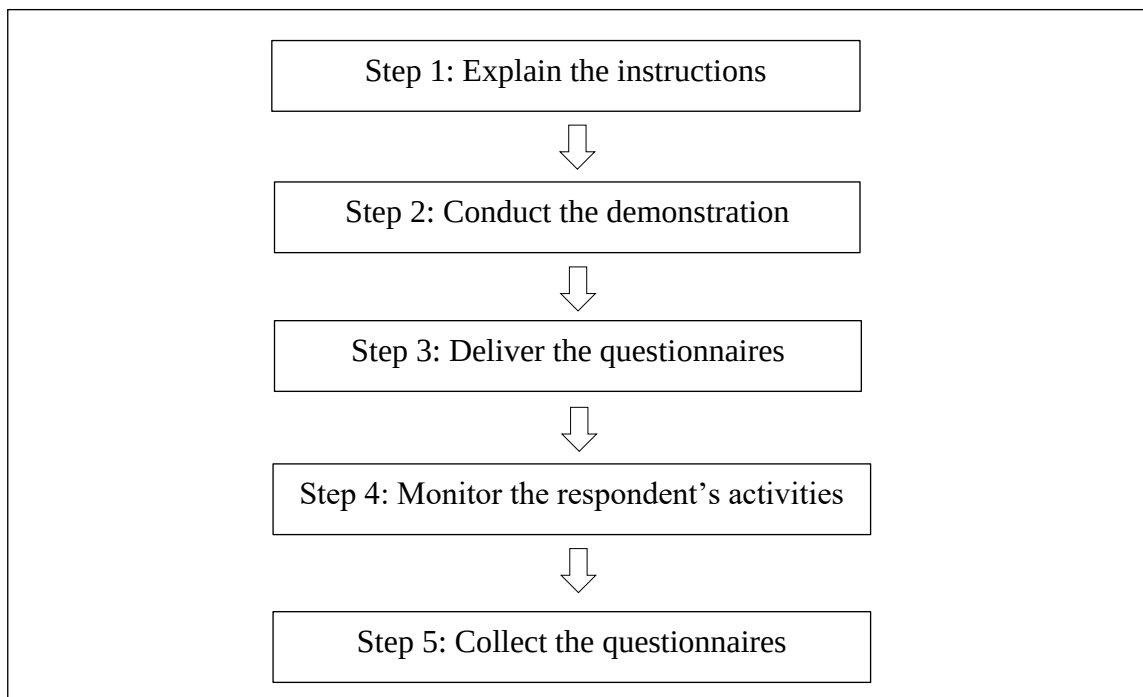


Figure 3.2: Steps of Data Collection Procedures

3.5 Data Analyses and Statistical Procedures

For data analyses, this study used the commercial program SPSS version 23. All collected data from the surveyed undergraduate students was analyzed by using descriptive and inferential statistics, respectively. Descriptive statistics was used to show general tendencies in data, such as the distribution of scores or a comparison of how one score compares to all others (Creswell, 2015).

There were some steps to conduct accurate data analysis and produce accurate results. The researcher used three steps including data preparation, data entry, and data analysis. Firstly, this step started with hard data preparation. There were 100 sets of raw data from participants, and all data were recorded in numbers from 1 to 100. This coding allowed the researcher to control and check all the information from the participants. There were no items that were missed and skipped from the participants. In addition, the data entry was a very important step, and it was carefully monitored. Secondly, to create data entry effectively and efficiently, the researcher used the Excel program and SPSS Statistic 23. The researcher typed the raw data in Excel files first because it saved some time. After that, the data was imported into the SPSS program. Moreover, reverse coding was important because some items in the research instrument had negative meanings. All negative items were marked in the star symbol (*). Lastly, there were two kinds of data analysis such as descriptive analysis and inferential analysis. In descriptive analysis, the research result response to research question 1. In addition to inferential statistical analysis, the research result response to research questions 2 and 3. The details of each statistical tool are presented as follows:

3.5.1 Descriptive Statistics

Practically, frequency, mean, and standard deviation are analyzed using descriptive statistics from a survey of 100 undergraduate students. Table 3.6 containing explanations of statistical data findings are presented. Norman's (2010) interpretation of mean scores serves as the foundation for the interpretation of descriptive statistic means.

Table 3.6
Interpretation of Mean

Likert Scale	Interval	Description	Interpretation
1	1.00 - 1.49	Strongly Disagree	Very Low
2	1.50 - 2.49	Disagree	Low
3	2.50 - 3.49	Neutral	Moderate
4	3.50 - 4.49	Agree	High

Likert Scale	Interval	Description	Interpretation
5	4.50 - 5.00	Strongly agree	Very High

3.5.2 Inferential Statistics

As applied in this study for research objectives two and three, to find a numerical value expressing the relationship between two variables, correlation analysis was utilized to determine and indicate the extent to which these two variables move together or are associated. According to Cresswell (2015), a correlation is a statistical test used to assess the tendency or pattern of two or more variables. Correlation research has certain characteristics, as suggested by the explanatory and prediction designs: (a) scores are displayed in scatterplots and matrices; (b) multiple variable analysis using partial correlations and multiple regression; and (c) associations between scores and direction, form, and strength. Furthermore, according to Ganti (2020), a correlation coefficient is a statistical measure of the strength of a relationship between two continuous variables.

In this study, a correlation coefficient may fall between -1 and +1. More precisely, a complete negative correlation of -1 meant that the current teacher morale and leadership methods were in direct opposition to one another. On the other hand, +1 demonstrated a completely positive association, suggesting that contemporary teacher morale and leadership techniques move in tandem. There was no association between them, according to a correlation of zero (0). A correlation matrix is a visual representation of the correlation coefficients for all variables in a study, and most correlation studies display correlation coefficients in a matrix (Cresswell, 2015). Furthermore, according to Ganti (2020), a correlation coefficient is a statistical measure of the strength of a relationship between two continuous variables. A Pearson correlation coefficient should be always between -1.0 and 1.0. A perfect negative correlation is represented by a correlation of -1.0, whereas a perfect positive correlation is represented by a correlation of 1.0. A

correlation of 0.0 indicates that the two variables have no linear relationship (Ganti, 2020).

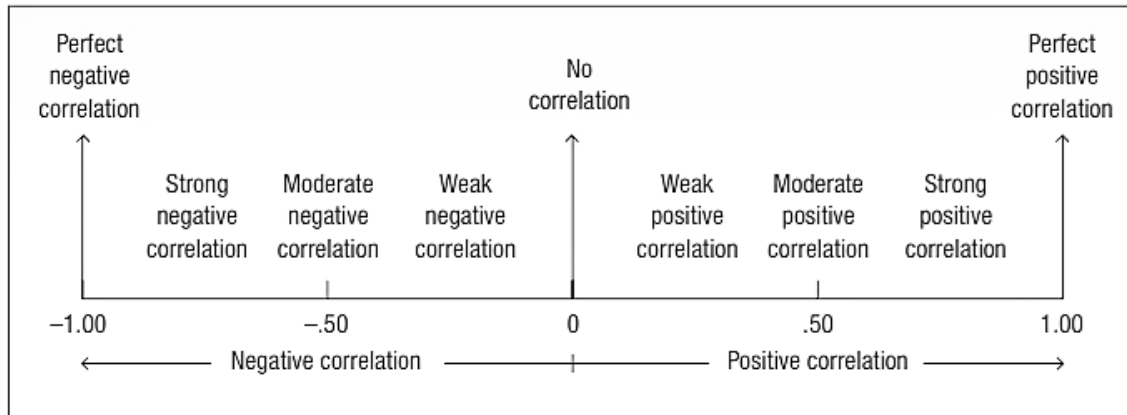


Figure 3.3: Correlation Coefficients (Developed by Lind et al., 2017)

Figure 3.3 shows the correlation coefficients developed by Lind et al., (2017). The coefficients range from -1.00 to 1.00. The sign (-) and (+) refers to the negative and positive correlation between variables of the study. The weak correlation is located between 0.00 to 0.50; the strong correlation is located between 0.50 to 1.00.

Again, Cresswell (2015) stated a p-value is a probability (p) that a result could have been produced by chance if the null hypothesis were true. According to Lind et al., (2017) comparing the p-value with the level of significance 0.05 (alpha), the null hypothesis can be rejected if the p-value is less than alpha ($p\text{-value} < \alpha$). However, the null hypothesis cannot be rejected if the $p\text{-value} \geq \alpha$.

Table 3.7

Summary of Data Analysis based on Research Hypotheses

No.	Research Hypotheses	Analysis Method
1.	H0 ₁	Inferential Statistics (Correlation Matrix, and p-value)
2.	H0 ₂	Inferential Statistics (Correlation Matrix, and p-value)
3.	H0 ₃	Inferential Statistics (Correlation Matrix, and p-value)
4.	H0 ₄	Inferential Statistics (Correlation Matrix, and p-value)
5.	H0 ₅	Inferential Statistics (Correlation Matrix, and p-value)

No.	Research Hypotheses	Analysis Method
6.	H0 ₆	Inferential Statistics (Correlation Matrix, and p-value)
7.	H0 ₇	Inferential Statistics (Correlation Matrix, and p-value)
8.	H0 ₈	Inferential Statistics (Correlation Matrix, and p-value)
9.	H0 ₉	Inferential Statistics (Correlation Matrix, and p-value)
10.	H0 ₁₀	Inferential Statistics (Correlation Matrix, and p-value)
11.	H0 ₁₁	Inferential Statistics (Correlation Matrix, and p-value)
12.	H0 ₁₂	Inferential Statistics (Correlation Matrix, and p-value)
13.	H0 ₁₃	Inferential Statistics (Correlation Matrix, and p-value)
14.	H0 ₁₄	Inferential Statistics (Correlation Matrix, and p-value)
15.	H0 ₁₅	Inferential Statistics (Correlation Matrix, and p-value)
16.	H0 ₁₆	Inferential Statistics (Correlation Matrix, and p-value)
17.	H0 ₁₇	Inferential Statistics (Correlation Matrix, and p-value)
18.	H0 ₁₈	Inferential Statistics (Correlation Matrix, and p-value)

Table 3.7 mentions data analyses according to the research hypotheses. There were eight null hypotheses for testing in this research study from H0₁ to H0₁₈. Table 3.8 below summarizes the data source and data analysis for each research question.

Table 3.8

Summary of Data Source and Data Analysis for Each Research Question

Research Question	Data Source	Data Analysis Method
1. What is the level of personality, academic performance, and family relations among undergraduate students in Cambodia?	The Surveyed Questionnaire: Parts A, B, C, D	Descriptive statistical
2. To what extent is there a correlation between the home environment and personality among undergraduate students in Cambodia?	The Surveyed Questionnaire: Parts B and C	1. Descriptive Statistics 2. Inferential statistics

Research Question	Data Source	Data Analysis Method
3. To what extent is there a correlation between the home environment and academic performance among undergraduate students in Cambodia?	The Surveyed Questionnaire: Parts B and D	1. Descriptive Statistics 2. Inferential statistics

3.6 Ethical Considerations

Ethical considerations were very important for conducting research. To maintain the ethics and morality of the research profession, the researcher always has permission to conduct research. All of the permission letters were signed by the head of the College of Education (CoE), the University of Cambodia. In addition, an anonymous questionnaire was used as the research instrument. Moreover, the names of the participants; thus, participants felt comfortable providing their responses. Moreover, all data which were collected from the surveyed students in the undergraduate program were kept confidential and the data were used for the purpose of research study only.

For a minimum of three years, the surveyed questionnaire will preserve and securely keep all survey results and report summaries. Only the researcher will have password-protected laptop access to Excel documents and SPSS for data entry. For at least three years, all electronic records and survey data will be kept on file. After that, the researcher will delete the files and backup copies.

The next chapter, Chapter 4, will present the data analyses and results of this study. This includes a thorough description and relevant statistical analysis of the study data within the context of each research question.

CHAPTER 4: DATA ANALYSES AND RESULTS

This chapter presents research results that answered three research questions. The chapter also begins with the analysis of the surveyed students' demographic characteristics. After that, research results in response to each research question will be presented in the following order: (a) research question 1 regarding the surveyed students' level of personality, academic performance, and family relation; (b) research question 2 regarding the surveyed students' home environment dimensions with personality; and (c) research question 3 regarding the surveyed students' home environment dimensions with academic performance. The last section is the summary of the chapter.

4.1 Results of the Surveyed Students' Demographic Characteristics

As mentioned, data for the current study were compiled from the results of the surveyed questionnaire, and various statistical methods were used to analyze the collected data. The organization of this chapter follows the order of the research questions as written in Chapter 1.

To further describe the surveyed students, demographic characteristics about the home environment personality, and academic performance were gathered through a demographic questionnaire. A form to collect demographics was completed by the surveyed students at the research site (see Appendix A). Demographic characteristics were reported concerning the surveyed undergraduate students, including Gender, age, Faculty/School/College, years of learning, father's education, mother's education, father's occupation, mother's occupation, family's monthly income, size of the family, birth orders, and family type.

The descriptive statistics (frequency and percentage) for the surveyed undergraduate students were tabulated, as illustrated in Tables 4.1 to 4.12, respectively.

4.1.1 Gender

The surveyed undergraduate students were asked to report whether they were male or female students.

Table 4.1

Distribution of the Surveyed Undergraduate Students by Gender (N=100)

Characteristic	Category	Frequency	Percentage
Gender	Male	31	31
	Female	69	69
Total		100	100

The undergraduates were asked to respond to the survey whether they were male or female. Table 4.1 reveals the data according to the gender of undergraduate students who completed the survey questionnaires. A high percentage (69%) of undergraduates were female participants. This proved that there were more females than males involved in this survey.

4.1.2 Age

The surveyed undergraduate students were asked to report whether their age category (less than 20, 20-25, and over 25 years old).

Table 4.2

Distribution of the Surveyed Undergraduate Students by Age (N=100)

Characteristic	Category	Frequency	Percentage
Age	Less than 20-Year-Old	16	16
	From 20–25-Year-Old	79	79
	Over 25-Year-Old	5	5
Total		100	100

Table 4.2 shows the distribution of the undergraduates by age at the university. The survey asked the participants to fill in the age part, then the researcher grouped the

data into three categories, such as the age less than 20-Years-Old, from 20-25-Years-Old, and Over 25-Years-Old. The Table reveals that 16% of undergraduates are less than 20 years old, 79% are 20-25 years old, and 5% are over 25 years old.

4.1.3 Faculty/School/College.

The surveyed undergraduate students were asked to report whether they were from which Faculty, School, or College.

Table 4.3

Distribution of the Surveyed Undergraduate Students by Faculty/School/College
(N=100)

Characteristic	Category	Frequency	Percentage
Faculty/ School/ College	Tony Fernandes School of Business (TFSB)	65	65
	College of Social Science (CoSS)	26	26
	College of Education (CoE)	1	1
	School of Foreign Language (SFL)	8	8
Total		100	100

Table 4.3 shows the distribution of the undergraduates by faculty/school/college at the university. The survey asked the participants to fill in the faculty/school/college then the researcher grouped the data into four categories Tony Fernandes School of Business (TFSB), College of Social Science (CoSS), College of Education (CoE), and School of Foreign Language (SFL). It also reveals that 65% of come from Tony Fernandes School of Business, and there is only 1% of undergraduates come from the College of Education.

4.1.4 Years of Learning

The surveyed undergraduate students were asked to report whether they were freshmen, sophomores, juniors, or seniors.

Table 4.4*Distribution of the Surveyed Undergraduate Students by Year of Learning (N=100)*

Characteristic	Category	Frequency	Percentage
Year	Freshman	31	31
	Sophomore	25	25
	Junior	15	15
	Senior	29	29
	Total	100	100

Table 4.4 shows the breakdown of the surveyed undergraduate academic year: 31% of undergraduates are freshmen; 25% of undergraduates are sophomores; 15% of undergraduates are juniors, and 29% of undergraduates are seniors.

4.1.5 Father's Education.

The surveyed undergraduate students were asked to report about the level of education of their father. Table 4.5 below presents its result.

Table 4.5*Distribution of the Surveyed Undergraduate Students by Father's Education (N=100)*

Characteristic	Category	Frequency	Percentage
Father's Education	Undereducated	8	8
	Primary School	15	15
	Secondary School	23	23
	High School	39	39
	Undergraduate School	13	13
	Graduate School	2	2
	Total	100	100

As shown in Table 4.5 above, the surveyed undergraduate students were asked to respond to the survey about their father's education level. The finding reveals the data according to the father's level of education by undergraduate students who completed the survey questionnaires, in which the highest percentage (39%) of father's education was

high school level. In addition, there were only 2% of the surveyed undergraduate students that finished graduate school.

4.1.6 Mother's Education

The surveyed undergraduate students were asked to report about the level of education of their mothers. Table 4.6 below shows the result.

Table 4.6

Distribution of the Surveyed Undergraduate Students by Mother's Education (N=100)

Characteristic	Category	Frequency	Percentage
Mother's Education	Undereducated	6	6
	Primary School	31	31
	Secondary School	31	31
	High School	24	24
	Undergraduate School	8	8
	Graduate School	0	0
Total		100	100

Table 4.6 presents the surveyed undergraduate students, which were asked to respond to the survey about their mother's education level. The finding reveals the data according to the mother's level of education by undergraduate students who completed the survey questionnaires, in which the highest percentage (31%) of mother's education was primarily level.

4.1.7 Father's Occupation.

The surveyed undergraduate students were asked to report about their father's occupation. Table 4.7 below shows the result.

Table 4.7*Distribution of the Surveyed Undergraduate Students by Father's Occupation (N=100)*

Characteristic	Category	Frequency	Percentage
Father's Occupation	Civil Servant	17	17
	Farmer	41	41
	Private Company	19	19
	Self-employed	23	23
Total		100	100

The undergraduates were asked to respond to the survey about the father's occupation. Table 4.7 reveals the data according to the father's occupation of undergraduate students who completed the survey questionnaire. The highest percentage (41%) of father's occupation was farmer. In contrast, there were only 19% of fathers who were employed at private company.

4.1.8 Mother's Occupation

The surveyed undergraduate students were asked to report about their father's occupation. Table 4.8 below shows the result.

Table 4.8*Distribution of the Surveyed Undergraduate Students by Mother's Occupation (N=100)*

Characteristic	Category	Frequency	Percentage
Mother's Occupation	Civil Servant	6	6
	Farmer	63	63
	Private Company	14	14
	Self-employed	17	17
Total		100	100

Table 4.8 above reveals the data according to the mother's occupation of undergraduate students who completed the survey questionnaire. The highest percentage (63%) of the mother's occupation was farmer. In contrast, there were only 14% of mother's occupation was employee at private company.

4.1.9 Family's Monthly Income

The surveyed undergraduate students were asked to report about their family monthly's income. The table 4.9 below shows the result.

Table 4.9

Distribution of the Surveyed Undergraduate Students by Family's Monthly Income (N=100)

Characteristic	Category	Frequency	Percentage
Family's Monthly Income	Less than 250 USD	15	15
	<250 USD to <500 USD	45	45
	<500 USD to 1,000 USD	28	28
	Above > 1,000 USD	12	12
Total		100	100

Table 4.9 above shows the distribution of the undergraduates by family's monthly income at the university. The survey asked the participants to fill the family's monthly income then the researcher group the data into four categories such as the income less than 250 USD, <250 USD to <500 USD, <500 USD to 1,000 USD, and Above > 1,000 USD. The table reveals that 45% of undergraduate family's monthly income is between 250 USD to 500 USD.

4.1.10 Size of the Family.

The surveyed undergraduate students were asked to report about their family size (small, average and large). The table 4.10 below shows the result.

Table 4.10

Distribution of the Surveyed Undergraduate Students by Size of the Family (N=100)

Characteristic	Category	Frequency	Percentage
Size of the Family	Small	68	68
	Average	29	29
	Large	3	3
	Total	100	100

It is revealed in Table 4.10 that among 100 undergraduates who completed the survey, 68% of undergraduate live in small families, and there is only 3% of participants living in the large family.

4.1.11 Birth Order

The surveyed undergraduate students were asked to report about their birth order family size. The table 4.11 below shows the result.

Table 4.11

Distribution of the Surveyed Undergraduate Students by Birth Order (N=100)

Characteristic	Category	Frequency	Percentage
Birth Order	1 st	36	36
	2 nd	33	33
	3 rd	14	14
	4 th	8	8
	5 th	6	6
	6 th	2	2
	7 th	1	1
Total		100	100

Table 4.11 asks the surveyed undergraduate students to respond to the survey about their birth order. The finding reveals the data according birth order of undergraduates, which the highest percentage (36%) of undergraduates was the 1st child in the family.

4.1.12 Family Type

The surveyed undergraduate students were asked to report about their birth order family type (Nuclear or Joint). The table 4.12 below shows the result.

Table 4.12

Distribution of the Surveyed Undergraduate Students by Family Type (N=100)

Characteristic	Category	Frequency	Percentage
Family Type	Nuclear	61	61
	Joint	39	39
Total		100	100

Table 4.12 above reveals the data according to the family type of undergraduate students who completed the survey questionnaire. The highest percentage (61%) of undergraduates were living in Nuclear families.

4.2 Results of the Research Question 1

The first research question asked, **“What is the level of personality, academic performance, and family relation among undergraduate students in Cambodia?”**

The first research question concentrated on the level of personality, academic performance, and family relation among undergraduate students in Cambodia. The researcher employed the quantitative data from the surveyed questionnaire (Parts B, C and D) in order to respond to the research question 1. A total of 100 surveyed undergraduate students participated in this study. In addition, the criteria of scale interpretation from Norman (2010) is shown as follows: very inaccurate- a score of 1, range from 1.00-1.50, interpretation of very low; moderately inaccurate- a score of 2, range from 1.51-2.50, interpretation of low; neither accurate nor inaccurate, a score of 3, range from 2.51-3.50, interpretation of moderate; moderately accurate, a score of 4, range from 3.51-4.50, interpretation of high; and very accurate, a score of 5, range from 4.51 to 5.00, interpretation of very high.

The results of this research question are presented in three subcategories as following order: (1) the surveyed undergraduate students’ level of personality; (2) the surveyed undergraduate students’ level of academic performance; and (3) the surveyed undergraduate students’ level of family relations.

4.2.1 The Surveyed Undergraduate Students’ Level of Personality

All the surveyed students were asked to response to 5-point Likert scale which went from (1) very in accurate, (2) moderately inaccurate, (3) neither accurate nor inaccurate, (4) moderately accurate, and (5) very accurate. The surveyed questionnaire (Part C) was examined and categorized the student personality into five dimensions: openness, extraversion, conscientiousness, emotion stability, and agreeableness.

Table 4.13

The Mean, Standard Deviation, Meaning and Rank of Each Personality Dimension (N=100)

No.	Personality Dimension	M	S.D.	Meaning	Rank
1.	Openness	3.59	0.95	High	1
2.	Extraversion	3.03	1.01	Moderate	5
3.	Emotional stability	3.47	0.93	Moderate	2
4.	Conscientiousness	3.16	1.03	Moderate	3
5.	Agreeableness	3.09	0.86	Moderate	4
Overall		3.26	0.95	Moderate	

As shown in Table 4.13 above, the level of personality among the surveyed undergraduate students as a whole were at moderate level (M=3.26, S.D.=0.95). To explore details in each dimension, the results revealed that the highest mean score was the Openness (M=3.59, S.D.=0.95), followed by the Emotional Stability (M=3.47, S.D.=0.93), the Conscientiousness (M=3.16, S.D.=1.03), the Agreeableness (M=3.09, S.D.=0.86), and the Extraversion was the least one (M=3.03, S.D.=1.10), respectively.

According to the Table 4.14, it explained the overall dimension. In addition, the Table 4.15, 4.16, 4.17, 4.18, and 4.19 discussed the undergraduates' Personality in each sub-dimension in details by items. To explore the dimension of Personality, the questionnaire was categorized into five main dimensions including Openness (7 items), Extraversion (9 items), Conscientiousness (10 items), Emotional Stability (8 items), and Agreeableness (7 items). The details of each dimension as described in the following Tables 4.14 to 4.18.

Table 4.14

Report Openness Level by the Surveyed Undergraduate Students (N=100)

No.	Openness Dimension	M	S.D.	Meaning	Rank
1.	Tend to vote for conservative political candidates.	3.09	0.86	Moderate	6
2.	Believe in the importance of art.	4.01	0.77	High	2

No.	Openness Dimension	M	S.D.	Meaning	Rank
3.	Am not interested in abstract ideas. *	2.96	1.05	Moderate	7
4.	Tend to vote for liberal political candidate.	3.78	0.83	High	4
5.	Avoid philosophical discussions. *	3.27	1.06	Moderate	5
6.	Don't enjoy going to art museums. *	3.91	1.10	High	3
7.	Don't like art. *	4.15	1.00	High	1
Overall		3.59	0.95	High	

Noted: () Negative items were reversed coded.*

As shown in Table 4.14 above, the surveyed undergraduate students responded to the Openness dimension with varying degrees of frequency and percentage. The overall mean score of Openness was 3.59 with the standard deviation of 0.59. The mean of individual items ranged from the lowest (2.96) to the highest (4.15). In addition, statement 7 “*Don't like art**” (M=4.15, S.D.=1.00) had the highest mean score, while statement 3 “*Am not interested in abstract ideas **” (M=2.96, S.D.=1.05) had the lowest mean score.

Table 4.15

Report Extraversion Level by the Surveyed Undergraduate Students (N=100)

No.	Extraversion Dimension	M	S.D.	Meaning	Rank
1.	Am the life of the party.	3.03	0.96	Moderate	6
2.	Am skilled in handling social situations.	3.31	0.92	Moderate	4
3.	Don't like to draw attention to myself. *	2.79	0.94	Moderate	7
4.	Make friend easily	3.81	1.07	High	1
5.	Know how to captivate people.	3.32	1.00	Moderate	3
6.	Keep in the background.	3.16	1.02	Moderate	5
7.	Don't talk a lot. *	2.51	1.11	Moderate	8
8.	Shirk my duties.	1.87	0.99	Low	9
9.	Don't see things through. *	3.47	1.11	Moderate	2
Overall		3.03	1.01	Moderate	

Noted: () Negative items were reversed coded.*

As revealed in Table 4.15 above, of the 100 undergraduates responded to the survey result on Extraversion dimension, the overall mean score was 3.03 with the standard deviation of 1.01. The mean score of individual items ranged from the lowest (1.87) to the highest (3.81). In addition, statement 4 “*Make friend easily*” (M=3.81, S.D.=1.07) had the highest mean score, while statement 8 “*Shirk my duties*” (M=1.87, S.D.=0.99) had the lowest mean score.

Table 4.16

Report Emotional Stability Level by the Surveyed Undergraduate Students (N=100)

No.	Emotional Stability Dimension	M	S.D.	Meaning	Rank
1.	Am always prepared.	3.85	0.80	High	5
2.	Make plans and stick to them.	3.91	0.88	High	4
3.	Carry out my plans.	4.01	0.87	High	2
4.	Do just enough work to get by.	2.96	1.04	Moderate	8
5.	Find it difficult to get down to earth.	3.94	0.82	High	3
6.	Pay attention to details.	4.20	0.80	High	1
7.	Waste my time.	2.56	1.12	Moderate	9
8.	Get chore done right away.	3.64	0.89	High	7
9.	Shirk my duties.	2.00	1.06	Low	10
10.	Don't see things through. *	3.66	1.02	High	6
Overall		3.47	0.93	Moderate	

Noted: () Negative items were reversed coded.*

As revealed in Table 4.16 above, the 100 surveyed undergraduate students responded to the survey on Emotional Stability dimension and the overall mean score was 3.47 with the standard deviation of 0.93. The mean of individual items ranged from the lowest (2.00) to the highest (4.20). In addition, statement 6 “*Pay attention to details*” (M=4.20, S.D.=0.80) had the highest mean score, while statement 9 “*Shirk my duties*” (M=2.00, S.D.=1.06) had the lowest mean score.

Table 4.17*Report Conscientiousness Level by the Surveyed Undergraduate Students (N=100)*

No.	Conscientiousness Dimension	M	S.D.	Meaning	Rank
1.	Have frequent mood swings.	3.49	0.91	High	1
2.	Am not easily bothered by things. *	2.64	0.95	Moderate	7
3.	Dislike myself. *	3.76	1.24	High	3
4.	Seldom feel blue. *	3.02	0.97	Moderate	6
5.	Panic easily.	3.09	1.15	Moderate	5
6.	Feel comfortable.	3.47	0.88	Moderate	2
7.	Am often down in the dumps.	2.63	1.05	Moderate	8
8.	Often feel blue. *	3.24	1.14	Moderate	4
Overall		3.16	1.03	Moderate	

Noted: () Negative items were reversed coded.*

As revealed in Table 4.17 above, the 100 surveyed undergraduate students responded to the survey on Conscientiousness dimension and the overall mean score was 3.16 with the standard deviation of 1.03. The mean of individual items ranged from the lowest (2.63) to the highest (3.49). In addition, statement 1 “*Have frequent mood swings*” (M=3.49, S.D.=0.91) had the highest mean score, while statement 7 “*Am often down in the dumps*” (M=2.63, S.D.=1.05) had the lowest mean score.

Table 4.18*Report Agreeableness Level by the Surveyed Undergraduate Students (N=100)*

No.	Agreeableness Dimension	M	S.D.	Meaning	Rank
1.	Respect others.	4.54	0.67	Very High	1
2.	Insult People.	1.31	0.74	Very Low	7
3.	Believe that others have good intentions.	3.44	0.87	High	4
4.	Accept people as they are.	4.12	0.80	High	2
5.	Get back at others.	1.94	1.02	Low	6
6.	Cut others to pieces.	2.25	1.08	Low	5
7.	Have a good word for everyone.	4.03	0.85	High	3
Overall		3.09	0.86	Moderate	

Noted: () Negative items were reversed coded.*

As revealed in Table 4.18 above, the 100 surveyed undergraduate students responded to the survey on Agreeableness dimension and the overall mean score was 3.09 with the standard deviation of 0.86. The mean of individual items ranged from the lowest (1.31) to the highest (4.54). In addition, statement 1 “*Respect others*” (M=4.54, S.D.=0.67) had the highest mean score, while statement 2 “*Insult People*” (M=1.31, S.D.=0.74) had the lowest mean score.

4.2.2 The Surveyed Undergraduate Students’ Level of Academic

Performance

It is interesting to note that in order to explore the level of academic performance among the 100 surveyed undergraduate students in Cambodia, the surveyed questionnaire (Part D) was employed. The collected data were analyzed using the descriptive statistics such as mean, and standard deviation. The table 4.19 below presents its result.

Table 4.19

Report Academic Performance Level by the Surveyed Undergraduate Students (N=100)

No.	Academic Performance	M	S.D.	Meaning	Rank
1.	In lesson tests	2.26	0.52	Fair	5
2.	In course works	2.32	0.51	Fair	2
3.	In midterm and final examination	2.29	0.51	Fair	4
4.	In core and compulsory course	2.33	0.53	Fair	1
5.	In grade point average (GPA)	2.32	0.52	Fair	3
Overall		2.30	0.51	Fair	

Noted: () Negative items were reversed coded.*

As revealed in Table 4.19 above, the 100 surveyed undergraduate students responded to the survey on the level of academic performance and the overall mean score was 2.30 with the standard deviation of 0.51. The mean of individual items ranged from the lowest (2.26) to the highest (2.33). In addition, statement 4 “*In core and compulsory*

course” (M=2.33, S.D.=0.53) had the highest mean score, while statement 1 “*In lesson tests*” (M=2.26, S.D.=0.52) had the lowest mean score.

4.2.3 The Surveyed Undergraduate Students’ Level of Family Relations

This section is to determine the level of family relations among the 100 surveyed undergraduate students in Cambodia. The surveyed questionnaire (Part B) was then used. The collected data were analyzed using the descriptive statistics such as mean, and standard deviation. The table 4.20 below shows its result.

Table 4.20

Reported Family Relations Level the Surveyed Undergraduate Students (N=100)

No.	Family Relations	M	S.D.	Meaning	Rank
1.	The members of my family really care about each other.	3.99	0.99	High	16
2.	I think my family is terrific.	4.01	0.94	High	14
3.	My family gets on my nerves. *	3.88	0.80	High	19
4.	I really enjoy my family.	4.36	0.74	High	6
5.	I really can depend on my family.	4.00	1.05	High	15
6.	I really do not care to be around my family. *	3.78	1.27	High	20
7.	I wish I was not the part of this family. *	4.56	0.91	Very High	2
8.	I get along well with my family.	4.33	0.72	High	7
9.	Member of my family argue too much. *	4.20	0.79	High	10
10.	There is no sense of closeness in my family. *	3.95	1.04	High	17
11.	My family doesn’t understand me. *	3.72	1.00	High	21
12.	I feel like a stranger in my family. *	4.17	1.11	High	12
13.	There is too much hatred in my family. *	4.73	0.48	Very High	1
14.	My family is well respected by others who know us.	3.90	0.97	High	18
15.	There seems a lot of friction in my family. *	4.26	0.79	High	9
16.	There is a lot of love in my family.	4.19	0.91	High	11
17.	Members of my family get along well together.	4.08	0.91	High	13
18.	Life in my family is generally unpleasant.	1.94	0.81	Low	24
19.	My family is a great joy to me.	4.38	0.74	High	4
20.	I feel proud of my family.	4.46	0.89	High	3
21.	Other families seem to get along better than ours.	2.67	1.10	Moderate	23
22.	My family is a real source of comfort to me.	4.37	0.87	High	5
23.	I feel left out of my family. *	3.55	1.18	High	22
24.	My family is an unhappy one. *	4.28	1.10	High	8
Overall		3.99	0.92	High	

Noted: () Negative items were reversed coded.*

Table 4.20 reveals the 100 surveyed undergraduate students reported leveling each family relation items with varying degrees and frequency. The means of individual family relation items ranged from a high of 4.73 to a low of 1.94 (with an overall mean of 4.17). The most frequently reported item was no. 13 “*There is too much hatred in my family**” (M=4.73, S.D.=0.48), followed by item no. 7 “*I wish I was not the part of this family **” (M=4.56, S.D.=0.91). The item with the lowest mean score was no. “*Life in my family is generally unpleasant*” (M=1.94, S.D.=0.81), followed by no. 21 “*Other families seem to get along better than ours*” (M=2.67, S.D.=1.10).

In summary, in order to answer this research question, the current study employed the surveyed questionnaire (Parts B, C and D) with the 100 surveyed undergraduate students studying at the private university in Phnom Penh, Cambodia. The collected data were analyzed by using the frequency, percentage, mean and standard deviation. The main findings of this research question were that the surveyed students perceived a wide range of the level of their personality, academic performance and family relations.

4.3 Results of the Research Question 2

The second research question asked, “**To what extent is there a correlation between the home environment and personality among the undergraduate students in Cambodia?**”

To gain more insights into the students’ correlation between their home environment and personality when they were asked to undertake the surveyed questionnaires (Parts B and C), the second research question was formulated. To address this question, the researcher used the collected data from parts B and C from the surveyed questionnaires. A total of 100 surveyed undergraduate students participated in this study.

The collected data were then analyzed using the inferential statistics. For this study, all correlations were then examined based on an alpha value of .05.

Table 4.21

Correlation Matrix of Home Environment on Student's Personality (N=100)

Correlation Matrix		Personality	Father's Education	Mother's Education	Father's occupation	Mother's occupation	Family's Monthly Income	Family Relations	Size of Family	Birth Order	Family Type
Personality	Pearson Correlation	-	-	-	-	-	-	-	-	-	-
	p-value	-	-	-	-	-	-	-	-	-	-
Father's Education	Pearson Correlation	.281**	-	-	-	-	-	-	-	-	-
	p-value	.005	-	-	-	-	-	-	-	-	-
Mother's Education	Pearson Correlation	.151	.500**	-	-	-	-	-	-	-	-
	p-value	.133	.000	-	-	-	-	-	-	-	-
Father's occupation	Pearson Correlation	.321**	.223*	.087	-	-	-	-	-	-	-
	p-value	.001	.026	.390	-	-	-	-	-	-	-
Mother's occupation	Pearson Correlation	.216*	.187	.162	.207*	-	-	-	-	-	-
	p-value	.031	.063	.108	.039	-	-	-	-	-	-
Family's Monthly Income	Pearson Correlation	.146	.278**	.258**	.108	.316**	-	-	-	-	-
	p-value	.147	.005	.010	.285	.001	-	-	-	-	-
Family Relations	Pearson Correlation	.362**	.079	.116	.240*	.141	-.027	-	-	-	-
	p-value	.000	.435	.250	.016	.162	.793	-	-	-	-
Size of Family	Pearson Correlation	.142	-.146	-.123	-.070	.044	.021	.195	-	-	-
	p-value	.158	.148	.224	.492	.667	.836	.051	-	-	-
Birth Order	Pearson Correlation	-.075	-.193	.023	-.071	.032	-.096	.065	.553**	-	-
	p-value	.456	.054	.820	.482	.749	.345	.518	.000	-	-
Family Type	Pearson Correlation	.242*	-.010	.123	-.007	.029	.074	.142	.206*	.205*	-
	p-value	.015	.924	.223	.942	.772	.465	.160	.040	.041	-

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Table 4.21 shows the summary results of the correlation study between the home environment and students' personality. Five sub-dimensions of Home Environment, such as father's education, father's occupation, mother's occupation, family relation, and family type were statistically significant to student personality. In contrast, there were

only four sub-dimensions such as mother's education, family's monthly income, size of the family, and birth order were not statistically significant to students' personality.

Table 4.22

Summary of Hypothesis Testing: Home Environment and Student's Personality (N=100)

	Hypotheses	Significant Value	Statistically Significant
H0 ₁	There is no significant correlation between father's level of education and students' personality.	0.005**	Supported
H0 ₂	There is no significant correlation between mother's level of education and students' personality.	0.133	Rejected
H0 ₃	There is no significant correlation between father's occupation and students' personality.	0.001**	Supported
H0 ₄	There is no significant correlation between mother's occupation and students' personality.	0.031*	Supported
H0 ₅	There is no significant correlation between family's monthly income and students' personality.	0.147	Rejected
H0 ₆	There is no significant correlation between family relations and students' personality.	0.000**	Supported
H0 ₇	There is no significant correlation between size of family and students' personality.	0.158	Rejected
H0 ₈	There is no significant correlation between birth order and students' personality.	0.456	Rejected
H0 ₉	There is no significant correlation between family type and students' personality.	0.015*	Supported

The details of nine null hypotheses testing are explained in the Table 4.23 to 4.31 below in detail by each hypothesis testing.

H0₁: There is no significant correlation between father's level of education and students' personality.

This table below determines whether any correlation between father's level of education and students' personality.

Table 4.23
Correlation between Father's Level of Education and Students' Personality

Correlation Matrix		Father's level of education	Student personality
Father's level of education	Pearson Correlation	1	.281**
	Sig. (2-tailed)		.005
	N	100	100
Student personality	Pearson Correlation	.281**	1
	Sig. (2-tailed)	.005	
	N	100	100

**, Correlation is significant at the 0.01 level (2-tailed).

As shown in the Table 4.23 above, the finding shows the correlation variables father's level of education and student personality. The Pearson Correlation Coefficient was $r = 0.281$, $p=0.005$, and $N=100$. The p -value of the correlation was less than 0.01; it was statistically significant between father's level of education on student personality. Thus, the research findings rejected the H0₁.

H0₂: There is no significant correlation between mother's level of education and students' personality

As stated, the table below seeks to see any correlation between mother's level of education and students' personality.

Table 4.24*Correlation between Mother's Level of Education and Students' Personality*

Correlation Matrix		Mother's level of education	Student personality
Mother's level of education	Pearson Correlation	1	.151
	Sig. (2-tailed)		.133
	N	100	100
Student personality	Pearson Correlation	.151	1
	Sig. (2-tailed)	.133	
	N	100	100

The Table 4.24 shows the correlation variables mother's level of education and student personality. The Pearson Correlation Coefficient was $r = 0.15$, $p=0.133$, and $N=100$. The p -value of the correlation was greater than 0.05; it was not statistically significant. Thus, the research findings accepted the H_{02} .

H_{03} : There is no significant correlation between father's occupation and students' personality.

The table below seeks to see any correlation between father's occupation and students' personality.

Table 4.25*Correlation between Father's Occupation and Students' Personality*

Correlation Matrix		Father's occupation	Student personality
Father's occupation	Pearson Correlation	1	.321**
	Sig. (2-tailed)		.001
	N	100	100
Student personality	Pearson Correlation	.321**	1
	Sig. (2-tailed)	.001	
	N	100	100

**, Correlation is significant at the 0.01 level (2-tailed).

The Table 4.25 shows the correlation variables father's occupation and student personality. The Pearson Correlation Coefficient was $r = 0.321$, $p=0.001$, and $N=100$. The p -value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H_{03} .

H_{04} : There is no significant correlation between mother's occupation and students' personality.

The table below seeks to see any correlation between mother's occupation and students' personality.

Table 4.26
Correlation between Mother's Occupation and Students' Personality

Correlation Matrix		Mother's occupation	Student personality
Mother's occupation	Pearson Correlation	1	.216*
	Sig. (2-tailed)		.031
	N	100	100
Student personality	Pearson Correlation	.216*	1
	Sig. (2-tailed)	.031	
	N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

The Table 4.26 shows the correlation variables mother's occupation and student personality. The Pearson Correlation Coefficient was $r = 0.216$, $p=0.031$, and $N=100$. The p -value of the correlation was less than 0.05; it was statistically significant. Thus, this finding rejected the H_{04} .

H_{05} : There is no significant correlation between family's monthly income and students' personality.

The table below seeks to see any correlation between family's monthly income and students' personality.

Table 4.27*Correlation between Family's Monthly Income and Students' Personality*

Correlation Matrix		Family Monthly 's income	Student personality
Family Monthly's income	Pearson Correlation	1	.146
	Sig. (2-tailed)		.147
	N	100	100
Student personality	Pearson Correlation	.146	1
	Sig. (2-tailed)	.147	
	N	100	100

The Table 4.27 shows the correlation variables family's monthly income and student personality. The Pearson Correlation Coefficient was $r = 0.146$, $p=0.001$, and $N=100$. The p -value of the correlation was higher than 0.01; it was not statistically significant. Thus, this finding rejected the H_{05} .

H_{06} : There is no significant correlation between family relation and students' personality.

The table below seeks to see any correlation between family relation and students' personality.

Table 4.28*Correlation between Family Relations and Students' Personality*

Correlation Matrix		Family relations	Student personality
Family relations	Pearson Correlation	1	.362**
	Sig. (2-tailed)		.000
	N	100	100
Student personality	Pearson Correlation	.362**	1
	Sig. (2-tailed)	.000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

The Table 4.28 shows the correlation variables family relations and student personality. The Pearson Correlation Coefficient was $r = 0.362$, $p=0.000$, and $N=100$.

The p -value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H0₆.

H0₇: There is no significant correlation between size of family and students' personality.

The table below seeks to see any correlation between the size of family and students' personality.

Table 4.29

Correlation between Size of the Family and Students' Personality

Correlation Matrix		Size of the family	Student personality
Size of the family	Pearson Correlation	1	.142
	Sig. (2-tailed)		.158
	N	100	100
Student personality	Pearson Correlation	.142	1
	Sig. (2-tailed)	.158	
	N	100	100

The Table 4.29 shows the correlation variables size of the family and student personality. The Pearson Correlation Coefficient was $r = 0.142$, $p=0.158$, and $N=100$. The p -value of the correlation was higher than 0.01; it was not statistically significant. Thus, this finding accepted the H0₇.

H0₈: There is no significant correlation between birth order and students' personality.

The table below seeks to see any correlation between the size of family and students' personality.

Table 4.30*Correlation between Birth Order and Students' Personality*

Correlation Matrix		Birth order	Student personality
Birth order	Pearson Correlation	1	.075
	Sig. (2-tailed)		.456
	N	100	100
Student personality	Pearson Correlation	.075	1
	Sig. (2-tailed)	.456	
	N	100	100

The Table 4.30 shows the correlation variables birth order and student personality. The Pearson Correlation Coefficient was $r = 0.075$, $p=0.456$, and $N=100$. The p -value of the correlation was higher than 0.01; it was not statistically significant. Thus, this finding rejected the H_{08} .

H_{09} : There is no significant correlation between family type and students' personality.

The table below seeks to see any correlation between family type and students' personality.

Table 4.31*Correlation between Family Type and Students' Personality*

Correlation Matrix		Family type	Student personality
Family type	Pearson Correlation	1	.242*
	Sig. (2-tailed)		.015
	N	100	100
Student personality	Pearson Correlation	.242*	1
	Sig. (2-tailed)	.015	
	N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

The Table 4.31 shows the correlation variables family relations and student personality. The Pearson Correlation Coefficient was $r = 0.242$, $p=0.015$, and $N=100$. The p -value of the correlation was less than 0.05; it was statistically significant. Thus, this finding rejected the H_{09} .

In summary, the findings of this research question revealed that there was partially a correlation between the home environment and personality among the undergraduate students in Cambodia.

4.4 Results of the Research Question 3

The third research question asked, **“To what extent is there a correlation between the home environment and academic performance among the undergraduate students in Cambodia?”**

The third research question focused on gaining an understanding of any correlation between the home environment and academic performance among the undergraduate students in Cambodia. To address this research question, the surveyed questionnaires (Parts B and D) were purposively employed in order to get the valid data from the targeted students. These questionnaires measured the surveyed students' perceived impact on the home environment and their academic performance.

As for the quantitative data which were partly reported in research question 2, the findings presented focused primarily on the data from all surveyed students on their academic performance. The collected data were then analyzed using the inferential statistics for hypotheses 10 to 18. Table 4.32 begins discussing this aspect by discussing the significant correlation in reported variables (home enjoyment and academic performance) by the surveyed students. For this study, all correlations were then examined based on an alpha value of .05.

Table 4.32*Correlation between Home Environment and Students' Academic Performance*

Correlation Matrix		Academic Performance	Father's Education	Mother's Education	Father's Occupation	Mother's Occupation	Family Monthly 's Income	Family Relations	Size of Family	Birth Order	Family Type
Academic Performance	Pearson Correlation	-	-	-	-	-	-	-	-	-	-
	p-value	-	-	-	-	-	-	-	-	-	-
Father's Education	Pearson Correlation	.341**	-	-	-	-	-	-	-	-	-
	p-value	0.001	-	-	-	-	-	-	-	-	-
Mother's Education	Pearson Correlation	.270**	.500**	-	-	-	-	-	-	-	-
	p-value	0.007	0.000	-	-	-	-	-	-	-	-
Father's Occupation	Pearson Correlation	.294**	.223*	0.087	-	-	-	-	-	-	-
	p-value	0.003	0.026	0.39	-	-	-	-	-	-	-
Mother's Occupation	Pearson Correlation	.283**	0.187	0.162	.207*	-	-	-	-	-	-
	p-value	0.004	0.063	0.108	0.039	-	-	-	-	-	-
Family monthly's income	Pearson Correlation	.302**	.278**	.258**	0.108	.316**	-	-	-	-	-
	p-value	0.002	0.005	0.01	0.285	0.001	-	-	-	-	-
Family Relations	Pearson Correlation	.378**	0.079	0.116	.240*	0.141	-	-	-	-	-
	p-value	0.000	0.435	0.25	0.016	0.162	0.027	0.793	-	-	-
Size of Family	Pearson Correlation	.200*	-0.146	-0.123	-0.07	0.044	0.021	0.195	-	-	-
	p-value	0.046	0.148	0.224	0.492	0.667	0.836	0.051	-	-	-
Birth Order	Pearson Correlation	0.05	-0.193	0.023	0.071	0.032	0.096	0.065	.553**	-	-
	p-value	0.621	0.054	0.82	0.482	0.749	0.345	0.518	0.000	-	-
Family Type	Pearson Correlation	.310**	-0.01	0.123	0.007	0.029	0.074	0.142	.206*	.205*	-
	p-value	0.002	0.924	0.223	0.942	0.772	0.465	0.16	0.04	0.041	-

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

According to Table 4.32, the finding shows the summary results of correlation studies between home environment and student academic performance. Eight sub-dimension of home environment, such as father's education, mother's education, father's occupation, mother's occupation, family's monthly income, family relations, size of the

family, and family type were statistically significant to student academic performance. In contrast, there was only one sub-dimensions such as birth order, was statistically insignificant to student academic performance.

Table 4.33 below summaries the research hypothesis testing.

Table 4.33

Summary of Hypothesis Testing between the Home Environment and Student's Academic Performance (N=100)

	Hypotheses	Significant Value	Statistically Significant
H0 ₁₀	There is no significant correlation between father's level of education and students' academic performance.	0.001**	Supported
H0 ₁₁	There is no significant correlation between mother's level of education and students' academic performance.	0.007**	Supported
H0 ₁₂	There is no significant correlation between father's occupation and students' academic performance.	0.003**	Supported
H0 ₁₃	There is no significant correlation between mother's occupation and students' academic performance.	0.004**	Supported
H0 ₁₄	There is no significant correlation between family monthly's income and students' academic performance.	0.002**	Supported
H0 ₁₅	There is no significant correlation between family relation and students' academic performance.	0.000**	Supported
H0 ₁₆	There is no significant correlation between size of family and students' academic performance.	0.046*	Supported
H0 ₁₇	There is no significant correlation between birth order and students' academic performance.	0.621	Rejected
H0 ₁₈	There is no significant correlation between family type and students' academic performance.	0.002**	Supported

The details of nine null hypotheses testing from H0₁₀ to H0₁₈ are explained in the Tables 4.34 to 4.42 below in detail by each hypothesis testing.

H0₁₀: There is no significant correlation between father's level of education and students' academic performance.

The table 4.34 below explores to find out any correlation between father's level of education and students' academic performance.

Table 4.34
Correlation between Father's Level of Education and Students' Academic Performance

Correlation Matrix		Father's level of education	Student academic performance
Father's level of education	Pearson Correlation	1	.341**
	Sig. (2-tailed)		.001
	N	100	100
Student academic performance	Pearson Correlation	.341**	1
	Sig. (2-tailed)	.001	
	N	100	100

****.** Correlation is significant at the 0.01 level (2-tailed).

The Table 4.34 shows the correlation variables between father's level of education and student academic performance. The Pearson Correlation Coefficient was $r = 0.341$, $p=0.01$, and $N=100$. The p-value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H0₁₀.

H0₁₁: There is no significant correlation between mother's level of education and students' academic performance.

The table 4.35 below explores to find out any correlation between mother's level of education and students' academic performance.

Table 4.35*Correlation between Mother's Level of Education and Students' Academic Performance*

Correlation Matrix		Mother's level of education	Student academic performance
Mother's level of education	Pearson Correlation	1	.270**
	Sig. (2-tailed)		.007
	N	100	100
Student academic performance	Pearson Correlation	.270**	1
	Sig. (2-tailed)	.007	
	N	100	100

** Correlation is significant at the 0.01 level (2-tailed).

The Table 4.35 shows the correlation variables between mother's level of education and student academic performance. The Pearson Correlation Coefficient was $r = 0.270$, $p=0.007$, and $N=100$. The p-value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H_{011} .

H_{012} : There is no significant correlation between father's occupation and students' academic performance.

The table 4.36 below explores to find out any correlation between father's occupation and students' academic performance.

Table 4.36*Correlation between Father's Occupation and Student Academic Performance*

Correlation Matrix		Father's occupation	Student academic performance
Father's occupation	Pearson Correlation	1	.294**
	Sig. (2-tailed)		.003
	N	100	100
Student academic performance	Pearson Correlation	.294**	1
	Sig. (2-tailed)	.003	
	N	100	100

** Correlation is significant at the 0.01 level (2-tailed).

The Table 4.36 shows the correlation variables between father's occupation and student academic performance. The Pearson Correlation Coefficient was $r = 0.294$, $p=0.003$, and $N=100$. The p-value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H_{012} .

H0₁₃: There is no significant correlation between mother's occupation and students' academic performance.

The table 4.37 below explores to find out any correlation between mother's occupation and students' academic performance.

Table 4.37
Correlation between Mother's Occupation and Students' Academic Performance

Correlation Matrix		Mother's occupation	Student academic performance
Mother's occupation	Pearson Correlation	1	.283**
	Sig. (2-tailed)		.004
	N	100	100
Student academic performance	Pearson Correlation	.283**	1
	Sig. (2-tailed)	.004	
	N	100	100

** Correlation is significant at the 0.01 level (2-tailed).

The Table 4.37 shows the correlation variables between mother's occupation and student academic performance. The Pearson Correlation Coefficient was $r = 0.283$, $p=0.004$, and $N=100$. The p-value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H_{013} .

H0₁₄: There is no significant correlation between family's monthly income and students' academic performance.

The table 4.38 below explores to find out any correlation between family's monthly income and students' academic performance.

Table 4.38*Correlation between Family's Monthly Income and Students' Academic Performance*

Correlation Matrix		Family's Monthly Income	Student's academic performance
Family's Monthly Income	Pearson Correlation	1	.302**
	Sig. (2-tailed)		.002
	N	100	100
Students' academic performance	Pearson Correlation	.302**	1
	Sig. (2-tailed)	.002	
	N	100	100

** Correlation is significant at the 0.01 level (2-tailed).

The Table 4.38 shows the correlation variables family's monthly income and student academic performance. The Pearson Correlation Coefficient was $r = 0.302$, $p=0.002$, and $N=100$. The p -value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H_{014} .

H_{015} : There is no significant correlation between family relations and students' academic performance.

The table 4.39 below explores to find out any correlation between family relations and students' academic performance.

Table 4.39*Correlation between Family Relations and Students' Academic Performance*

Correlation Matrix		Family relations	Students' academic performance
Family relations	Pearson Correlation	1	.378**
	Sig. (2-tailed)		.000
	N	100	100
Students' academic performance	Pearson Correlation	.378**	1
	Sig. (2-tailed)	.000	
	N	100	100

** Correlation is significant at the 0.01 level (2-tailed).

Table 4.39 shows the correlation variables family relations and student academic performance. The Pearson Correlation Coefficient was $r = 0.378$, $p=0.000$, and $N=100$.

The p-value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H0₁₅.

H0₁₆: There is no significant correlation between the size of family and students' academic performance.

The table 4.40 below explores to find out any correlation between the size of family and students' academic performance.

Table 4.40

Correlation between Size of the Family and Students' Academic Performance

Correlation Matrix		Size of the family	Student academic performance
Size of the family	Pearson Correlation	1	.200*
	Sig. (2-tailed)		.046
	N	100	100
Student academic performance	Pearson Correlation	.200*	1
	Sig. (2-tailed)	.046	
	N	100	100

* Correlation is significant at the 0.05 level (2-tailed).

The Table 4.40 shows the correlation variables size of the family and student academic performance. The Pearson Correlation Coefficient was $r = 0.20$, $p=0.000$, and $N=100$. The p -value of the correlation was less than 0.05; it was statistically significant. Thus, this finding rejected the H0₁₆.

H0₁₇: There is no significant correlation between the birth order and students' academic performance.

The table 4.41 below explores to find out any correlation between the bird order and students' academic performance.

Table 4.41*Correlation between Birth Order and Students' Academic Performance*

Correlation Matrix		Birth order	Student academic performance
Birth order	Pearson Correlation	1	.0050
	Sig. (2-tailed)		.621
	N	100	100
Student academic performance	Pearson Correlation	.0050	1
	Sig. (2-tailed)	.621	
	N	100	100

The Table 4.41 shows the correlation variables birth order and student academic performance. The Pearson Correlation Coefficient was $r = 0.05$, $p = 0.621$, and $N = 100$. The p-value of the correlation was greater than 0.05; it was not statistically significant. Thus, this finding accepted the H_{017} .

H_{018} : There is no significant correlation between the family type and students' academic performance.

The table 4.42 below explores to find out any correlation between the bird order and students' academic performance.

Table 4.42*Correlation between Family Type and Students' Academic Performance*

Correlation Matrix		Family type	Student academic performance
Family type	Pearson Correlation	1	.031**
	Sig. (2-tailed)		.002
	N	100	100
Student academic performance	Pearson Correlation	.031**	1
	Sig. (2-tailed)	.002	
	N	100	100

** Correlation is significant at the 0.01 level (2-tailed).

The Table 4.42 shows the correlation variables family type and student academic performance. The Pearson Correlation Coefficient was $r = 0.31$, $p=0.002$, and $N=100$. The p -value of the correlation was less than 0.01; it was statistically significant. Thus, this finding rejected the H_{018} .

In summary, the third research question indicated the correlation among the study variables and hypotheses were partially accepted.

4.5 Summary of the Chapter

The purpose of this quantitative, correlational research study was to examine if and to what extent a relationship existed between each of the home environment, personality and academic performance among the undergraduate students in Cambodia. To determine the minimum sample needed for this study, the researcher used the Yamane's formulation analysis. The study was guided by three research questions with their corresponding null hypotheses.

The research samples for this study consisted of a total of 100 undergraduate students studying at the private university in Phnom Penh, Cambodia. The research instrument was the surveyed questionnaires. The researcher manually scored the surveyed questionnaires from each student and input these scores into SPSS. The researcher followed scoring guidelines from each instrument's manual. Results were appropriately coded and categorized before running a statistical analysis. Descriptive statistics were run by the researcher utilizing SPSS, and results were presented with Tables and Figures.

The research question 1, the results of the data analysis showed that the surveyed students perceived the home environment, personality and academic performance were at high levels. For research question 2, the results showed a positive relationship between the home environment and students' personality, and this relationship was statistically

significant with a big effect size. Therefore, for the research question 2, the null hypotheses could be accepted. For research question 3, the results of the analysis showed a positive relationship between the home environment and students' academic performance. The null hypotheses of the research question 3 could not be rejected. Research question 3 was also the only relationship with statistical significance.

Next chapter, Chapter 5 presents a discussion of the results. The discussion will include how the findings relate to the literature and the significance of the findings.

CHAPTER 5: DISCUSSION

Chapter 5 discusses the key results of the study. It starts with providing a summary of findings and conclusions, which will include a reflection on the dissertation process. A discussion of the theoretical and practical of the study are also presented in this chapter. In order to make it easy to follow for the readers, this study discusses the results of each research question which were presented in the chapter 1.

5.1 Summary of the Research Findings

This section will briefly summarize the research findings. Below is the summary of the following aspects based on the research questions: (a) students' perceived level of personality, academic performance and family relations; (b) relationship between home environment and students' personality; and (c) relationship between home environment and students' academic performance.

5.1.1 Students' Perceived Level of Personality, Academic Performance and Family Relations

This section explains the level of personality, academic performance, and family relations among the undergraduate students studying at the private university in Phnom Penh, Cambodia.

Firstly, the results of recent study showed the levels of the undergraduate students' personality in different types, including Openness, Extraversion, Emotional Stability, Conscientiousness, and Agreeableness. The mean and standard deviation of the five main categories of personality measured its level. First type of personality was the Openness; the descriptive statistics' result showed the mean score of 3.59, with the standard deviation 0.95. The second type personality type was the Extraversion; it had the mean score of 3.03 with the standard deviation of 1.01. The third type of personality was the Emotional Stability; and the result revealed the mean score of 3.47 with the standard

deviation of 0.93. The fourth type of personality was the Conscientiousness; the result revealed the mean score of 3.16, with the standard deviation of 1.03. Last, the Agreeableness had the mean score of 3.09, with the standard deviation of 0.86. Among the five categories, the mean score of the Extraversion was the lowest (3.03) while the Openness' mean score was the highest (3.59).

In short, most undergraduate students were located in the Openness categories of personality as seen in the mean score of 3.59. The students who study at the private university in Phnom Penh are more open to all the diversity situations. In addition, students with a high Openness score are more likely to be creative, innovative, curious, and liberal, as well as like diversity by Feist et al. (2018). This type of personality can influence their academic performance, career success, and enhance their quality of life in the near future.

Secondly, to measure the level of undergraduates' academic performance, this study used mean and standard deviation score. There were five items, such as in lesson tests, in course works, in midterm and final examination, in core and compulsory course, and in grade point average (GPA) for measuring academic performance. As shown in the Appendix D, in lesson tests, 4 (4%) of the undergraduate students' performance level was poor, 66 (66%) was fair, and 30 (30%) was good. In course work, 2 (2%) of the undergraduate students' performance level was poor, 64 (64%) was fair, and 34 (34%) was good. In midterm and final examination, 3 (3%) of the undergraduate students' performance level was poor, 65 (65%) was fair, and 32 (32%) was good. In core and compulsory course, 3 (3%) of the undergraduate students' performance level was poor, 61 (61%) was fair, and 36 (36%) was good. In grade point average (GPA), 3 (3%) of the undergraduate students' performance level was poor, 62 (62%) was fair, and 35 (35%) was good.

In addition, the mean and standard deviation scores in items such as in lesson tests, in course works, in midterm and final examination, in core and compulsory course, and in grade point average (GPA) were 2.26, 2.23, 2.29, 2.33, and 2.32, with standard deviation 0.52, 0.51, 0.51, 0.53, and 0.52 accordingly. In conclusion, the total mean and standard deviation scores of undergraduates' academic performance was 2.30 with standard deviation 0.51. Therefore, the undergraduate students' academic performance was in average level.

Lastly, the result of level of family relations shows the overall mean score of family relations in Table 4.20 was 3.99 with the standard deviation was 0.92. Students' family had good relations amount husband and wife, parents and children, and sibling.

By virtue of its importance, the level of socioeconomic status was measured in descriptive statistics with the sub-dimensions such as parent's level of education, parent's occupation, and family's monthly income. Previously indicated, the parents' level of education was divided into father's education and mother's education. There were five main levels of education such as undereducated, primarily school, secondary school, high school, undergraduate school, and graduate school. There were 8 (8%) of respondent's father who were undereducated, 15(15%) finished primary school, 23 (23%) finished secondary school, 39 (39%) finished high school, 13 (13%) completed undergraduate school, and only 2 (2%) could finish graduate school. According to these results, the high level of fathers' education was limited. Most of undergraduates' father was finish high school. Based on the results of mothers' education, there were 6 (6%) of participant's mother were undereducated, 31 (31%) finished primary school level, 31 (31%) completed secondary school, and 24 (24%) finished high school.

Besides that, parents' occupation also reflects socioeconomic status of the family as well. The study categorizes occupation into civil servant, farmer, housewife, employee

at private company, and self-employed. In Table 4.7, 17 (17%) of undergraduate fathers' occupation was civil servant, 41 (41%) was farmer, 19 (19%) was employee at private company, and 23 (23%) was self-employed. In addition, Table 4.8 shows that 6 (6%) of undergraduate's mother occupation was civil servant, 63 (63%) was housewife, 14 (14%) was employee at private company, and 17 (17%) was self-employed. The vast majority of fathers' and mothers' occupations were farmers and housewives. Last but not least, family's monthly income also indicated the socioeconomic status of family. In Table 4.9, 15 (15%) of family had an income less than 250 USD, 45 (45%) earned between 250 USD to 500 USD, 28 (28%) made between 500 USD to 1,000 USD, and only 12 (12%) earned above 1,000 USD per month.

In short, the family socioeconomic status, which measures the parents' level of education was mostly limited, parents' occupation were mainly farmers and housewives, and family's monthly income was generally between 250 USD to 500 USD.

5.1.2 Relationship between Home Environment and Students' Personality

This part shows summary results of correlation studies between sub-dimensions of home environment and students' personality as presented in Chapter 4. Five sub-dimensions of home environment, such as father's education, father's occupation, mother's occupation, family relations, and family type were statistically significant to student personality. In contrast, there were only four sub-dimensions of home environment, such as mother's education, parent's income, size of the family, and birth order that were not statistically significant to student personality.

The findings revealed that there was a significant correlation between father's education and student personality ($r=0.28$, $p<0.01$). The father's education was the independent variable, while the student personality was dependent variable. Also, there was a significant correlation between father's profession and student personality ($r=0.32$,

$p < 0.01$). The father's profession was the independent variable, while the student personality was dependent variable. Moreover, there was a significant correlation between mother's profession and student personality ($r = 0.21$, $p < 0.01$). The mother's profession was the independent variable, while the student personality was dependent variable. Fourth, there was a significant correlation between family relations and student personality ($r = 0.36$, $p < 0.01$). The family relations were the independent variable, while the student personality was dependent variable. Fifth, there was a significant correlation between family type and student personality ($r = 0.24$, $p < 0.01$). The family type was the independent variable, while the student personality was dependent variable.

In contrast, there were four sub-dimensions which were not statistically significant. First, there was not significant correlation between mother's education and student personality ($r = 0.15$, $p < 0.01$). The mother's education was the independent variable, while the student personality was dependent variable. Second, there was not a significant correlation between family's income and student personality ($r = 0.14$, $p < 0.01$). The family's income was the independent variable, while the student personality was dependent variable. Third, there was not a significant correlation between size of the family and student personality ($r = 0.14$, $p < 0.01$). The size of the family was the independent variable, while the student personality was dependent variable. Last, there was not a significant correlation between birth order and student personality ($r = 0.14$, $p < 0.01$). The birth order was the independent variable, while the student personality was dependent variable.

5.1.3 Relationship between Home Environment and Students' Academic Performance

This part shows summary results of correlation between home environment and students' academic performance. There were eight sub-dimensions of home environment,

such as father's education, mother's education, father's occupation, mother's occupation, family's monthly income, family relations, size of the family, and family type were statistically significant to student academic performance. In contrast, there was only one sub-dimension, birth order, which was statistically insignificant to student academic performance.

Firstly, there was a significant correlation between father's education and student academic performance ($r = 0.34, p < 0.01$). The father's education was the independent variable, while the student academic performance was dependent variable. Secondly, there was a significant correlation between mother's education and student academic performance ($r = 0.27, p < 0.01$). The mother's education was the independent variable, while the student academic performance was dependent variable. Thirdly, there was a significant correlation between father's occupation and student academic performance ($r = 0.29, p < 0.01$). The father's occupation was the independent variable, while the student academic performance was dependent variable. Fourthly, there was a significant correlation between mother's occupation and student academic performance ($r = 0.28, p < 0.01$). The mother's occupation was the independent variable, while the student academic performance was dependent variable.

Fifthly, there was a significant correlation between family monthly's income and student academic performance ($r = 0.30, p < 0.01$). The family's monthly income was the independent variable, while the student academic performance was dependent variable. Sixth, there was a significant correlation between parent's relations and student academic performance ($r = 0.37, p < 0.01$). The family relations were the independent variable, while the student academic performance was dependent variable. Seventhly, there was a significant correlation between size of the family and student academic performance ($r = 0.20, p < 0.05$). The size of the family was the independent variable, while the student

academic performance was dependent variable. Eighthly, there was not significant correlation between birth order and student academic performance ($r = 0.05, p > 0.01$). The birth order was the independent variable, while the student academic performance was the dependent variable. Lastly, there was a significant correlation between family type and student academic performance ($r = 0.31, p < 0.05$). The family type was the independent variable, while the student's academic performance was the dependent variable.

5.2 Discussion of the Research Findings

Below is the thematic discussion of the following two aspects based on the findings: (1) home environment and students' personality; and (2) home environment and students' academic performance.

5.2.1 Thematic Discussion of the Home Environment and Students'

Personality

Below is discussed the study variables of the home environment and personality among the undergraduate students in Cambodia comparing with others researchers both regionally and globally.

Table 5.1*Results of Thematic Discussion of the Home Environment and Students' Personality*

No	Variable	Researcher	Results with personality
1	Father's education	Steinmayr et al. (2010)	Significant mediators of the relationship between parents' education and student's personality.
2	Mother's education	Steinmayr et al. (2010)	Significant mediators of the relationship between parents' education and student's personality.
3	Father's occupation	Mahalakshmi et al. (2015)	This was significantly affected to personality.
4	Mother's occupation	Mahalakshmi et al. (2015)	This was significantly affected to personality.
5	Family's monthly income	Mahalakshmi et al. (2015)	This was significantly affected to personality.
6	Family relations	Zhang et al. (2018)	Parent-child relationships were significantly correlated with personality traits.
7	Size of family	Zyrianova et al. (2013)	There was a relationship between family size and personality.
8	Birth order	Ha and Tam (2013) Zyrianova et al. (2013)	There was no relationship between birth order and personality. There was a relationship between birth order and personality.
9	Family type	Yadav (2020)	Type of family is a significant influencing factor on personality.

Table 5.1 above presents the correlations of previous studies compared to this current study. To discuss our results in detail, the research will start by comparing each theme in the table with all the findings' results. There are nine main themes, such as father's education, mother's education, father's occupation, mother's occupation, family's monthly income, family relations, size of the family, birth order, and family type.

Firstly, the current result showed a significant relationship between father's education and student personality. This finding was coherent with previous researchers

Steinmayr et al. (2010). They proved that there was the significant mediator of the relationship between parents' education and student's personality. While the result of mother's education was not significant in this study on the relationship with student personality, which was contrasted from Steinmayr et al. (2010)'s study.

Secondly, the research result revealed a significant relationship between parents' occupation, including mother's and father's occupation and personality. These research results were supported by Mahalakshmi et al. (2015). They then found out home environmental elements, like family structure, parents' education, family income, family atmosphere, parenting style, parental ability to perceive negative emotion, and guardians' education level have an impact on the development of children's personalities. In contrast, there was no significant correlation between parent's income and student personality in this study. This finding was contrasted with the study of Mahalakshmi et al. (2015).

Thirdly, the result showed a significant relationship between family relations and student personality. This result was strongly supported by Zhang et al. (2018). Their study found that family SES and parent-child relationships were significantly correlated with children's social creativity, and personality traits and played a mediation role in these associations.

Fourthly, the result showed there was no significant correlation between size of the family and student personality in this study; it contrasted from Zyrianova et al. (2013). Zyrianova et al. (2013) stated family structure, such as birth order and size of family, was a significant relationship in personality traits. However, the current study, showed that there was no significant correlation between birth order and student personality. This finding was aligned with Ha and Tam (2011) and contrasted with Zyrianova et al. (2013). Ha and Tam (2011) said results showed that participants of different birth orders did not differ significantly in terms of personality.

Lastly, the result showed a significant relationship between family type and student personality. It supported previous researcher, Yadav (2020). Yadav concluded that the type of family is a significant influencing factor on the disordered personality of sportspersons.

5.2.2 Thematic Discussion of Home Environment and Students' Academic Performance

Below is discussed the study variables of the home environment and academic performance among the undergraduate students in Cambodia compared with other researchers both regionally and globally.

Table 5.2
Results of Thematic Discussion of the Home Environment and Academic Performance

No	Home environment	Researcher	Results with academic performance
1	Father's education	Davis (2005)	Predicts the academic outcome.
		Crede et al. (2015)	There is no association between academic achievement.
		Idris et al. (2020)	Positively contributes to their children academic achievement.
2	Mother's education	Davis (2005)	Predicts the academic outcome.
		Crede et al. (2015)	Moderator of the association between academic achievement.
		Idris et al. (2020)	Positively contributes to their children academic achievement.
3	Father's occupation	Saifi and Mehmoon (2011)	Significantly influence students' achievement.
		Usaini and Abubakar (2015)	Great influence on students' academic performance.
		Odoh et al. (2017)	Significantly influenced students' academic performance
4	Mother's occupation	Saifi and Mehmoon (2011)	Significantly influences students' achievement.
		Usaini and Abubakar (2015)	Great influence on students' academic performance.
		Odoh et al. (2017)	Significantly influences students' academic performance
5	Parent's income	Machebe et al. 2017)	Impact on student academic achievement.
		Davis (2005)	Predicts the academic outcome.

No	Home environment	Researcher	Results with academic performance
		Suleman et al. (2012)	Contributes more into the academic performance.
		Li et al., (2022)	Relationships significantly and positively affect academic performance.
6	Family relation	Carmona et al. (2020)	Parent-child relationship can directly predict a student's academic performance.
		Obeldobel and Kerns, (2021)	Parent-child relationships directly affect academic performance.
		Lansangan et al. (2015)	There is no significant relationship.
7	Size of family	Muola (2010)	There was 26% significant correlation between family size and academic achievement.
		Marks (2006)	An association between family size and educational outcomes.
		Bonesrønning and Massih (2011)	Highly significant birth order effects on students' academic achievements.
8	Birth order	Ha and Tam (2011)	Birth order and academic performance were not statistically significantly correlated.
		AlSaleh et al. (2021)	There was no significant effect between birth order and academic performance.
		Marks (2006)	There was significant effect of family type on students' achievement.
9	Family type	Riala et al. (2003)	Association between family background, such as family type, on educational achievement.

As revealed in Table 5.2 above, it presents the correlation between previous studies compared to this current study. To discuss our results in detail, the research will start by comparing each theme in the table with all the findings' results. There are nine main themes, such as father's education, mother's education, father's occupation, mother's occupation, family's monthly income, family relations, size of the family, birth order, and family type.

Firstly, the current result showed a significant relationship between father's education and academic performance. This finding was coherent with previous researchers such as Davis (2005) and Idris et al. (2020). According to Davis (2005) the correlations also provided some initial evidence that parent education and income are moderate to strong predictors of achievement outcomes. Idris et al., (2020) findings of the study revealed the high education of father and mother positively contributed to their children's academic achievement. A large correlation was found between parents' education and students' academic achievement. This explains that the educational level of parents positively contributes to the academic achievement of their children. In contrast, a study by Crede, et al. (2015) found that mothers' education had a significant relationship with student academic performance, but was not significantly correlated with fathers' education.

Secondly, the result showed a significant relationship between mother's education and academic performance. The research result aligned with previous research Davis (2005), Crede et al. (2015), and Idris et al. (2020). These researchers proved that the mother's education positively contributed to their children's academic achievement. Crede, et al. (2015) demonstrated that mothers' education was associated with the academic achievement of students through their research study at a German high school using correlation analysis.

Thirdly, the result showed a significant relationship between parents' occupations, including father's occupation and mother's occupation and academic performance. This result supported the previous authors Saifi and Mehmoon (2011), Usaini and Abubakar (2015), and Odoh et al. (2017). Usaini and Abubakar (2015) wrote that parental occupation has a great influence on students' academic performance. Saifi and Mehmoon (2011) pointed out that parents' occupation significantly influenced students'

achievement. Odoh et al., (2017) results obtained indicated that parental occupational level significantly influenced students' academic performance.

Fourthly, the current study showed a significant relationship between a family's monthly income and academic performance. It was the same with the authors Machebe et al. (2017), Davis (2005), and Suleman et al. (2012). High-income families easily managed their children's basic, health, food, and educational needs; in addition, they provided extra facilities and opportunities to their children which could contribute more to the academic performance of their children (Suleman et al., 2012). In addition, Machebe et al. (2017) said there was an impact of parent level of income on student academic achievement.

Fifthly, the result showed a significant relationship between family relations and academic performance. It supported the previous researcher Li, Huang, Hu, and Zhao (2022), Carmona et al. (2020), and Obeldobel and Kerns, (2021). Obeldobel and Kerns (2021) proved that parent-child relationships not only directly affected the academic performance but also an individual's positive emotions. Carmona et al. (2020) research demonstrated that the parent-child relationship can directly predict a student's academic performance. Li et al. (2022) showed that the parent-child relationship significantly and positively affected the academic performance of college students. Parent-child relationships could explain 62% of academic performance.

Sixthly, the result showed significant relationship between the size of the family and academic performance. The result contrasted with Lansangan et al. (2015), but supported Muola (2010) and, Marks (2006). Lansangan et al. (2015) stated there was no significant relationship between respondents' academic performance and the number of siblings the pupils had. Muola (2010) said there was 26% correlation between family size and academic achievement. Marks (2006) claimed the measure of 'family size' was

constructed from a question on the number of the student's brothers and sisters, and the finding revealed the association between family size and educational outcomes.

Seventhly, the result showed there was not a significant relationship between birth order and academic performance. The result was the same with AlSaleh et al. (2021) and Ha and Tam (2011), but contrasted with Bonesrønning & Massih (2011). AlSaleh et al. (2021) the research result of multiple regression showed that the birth order and family size were included as independent variables, yielded no significant effect on academic achievement. Bonesrønning and Massih (2011) found out quite a large and highly significant birth order effect on students' academic achievement for the most frequent family sizes of two, three, and four children. The reason was that young motherhood took away some of the advantages of being the firstborn child. Ha and Tam (2011) said the Pearson correlation was used to test the relationship between personality and academic performance. Results showed that there was 22% relationship between personality and academic performance; birth order effect on academic performance was not statistically significant.

Finally, the result showed a significant relationship between family type and academic performance. The result of this study supported Marks (2006), and Riala et al. (2003). Riala et al. (2003) claim the association between family background, such as family type, on educational achievement. Marks (2006) revealed the association between family size and educational outcomes.

5.3 Summary of the Chapter

This chapter briefly summarized and discussed the findings of the study and tried to answer the research questions. It mainly discussed the home environment with undergraduate students' personality and academic performance. The analysis and

discussion of the findings of this study were compared with the findings in other studies about home environment. Comparing the findings of this study with the findings of previous studies enabled the researcher to position this research in the large discursive literature about undergraduate students' personality and their academic performance. Chapter 6 will present a conclusion and recommendations of the study.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

This final chapter will conclude the research titled *Home Environment on Personality and Academic Performance among Undergraduate Students in Cambodia*. It begins with the conclusion of the research study. It will also discuss some pedagogical and theoretical issues and suggest the contribution of the study, recommendations for further research, and personal concluding reflection statements.

6.1 Conclusion

The current study further supports the use of an ecological paradigm by showing that a variety of factors influence the home environment (Hudsen, 1982; Bronfenbrenner, 1999; Holdberg, 1999; Parveen, 2007; Kyoshiba, 2009). The interactions among stakeholders and the surrounding environs have a significant impact on student's personality and academic performance. Some of the obstacles to home environment collaboration that are commonly mentioned in the literature are lessened when a program encourages and fosters a positive relationship between parents and teachers. The surveyed students' reports of their home environments are often positive and highly connected. They report that their relationship is good and that they both agree that it is collaborative.

Previous studies on the association between the home environment, personality, and academic performance (Hudsen, 1982; Holdberg, 1999; Parveen, 2007; Kyoshiba, 2009) and parent participation have been constrained by the number of assessment occasions and analytical techniques used. Directionality problems cannot be addressed by cross-sectional research (Curran, 2000; Berrington et al., 2016). Furthermore, the majority of previous longitudinal studies on this subject have only used two data waves and have not taken into account the potential reciprocal impacts of the home environment on personality and academic achievement (Hudsen, 1982; Holdberg, 1999; Parveen, 2007; Kyoshiba, 2009). Three variables from a quantitative correlational design are used

in this study to solve the issue. As a result, the design offers a means of concurrently testing for effects in both directions and drawing conclusions about causality.

This makes it clear that, at the time of this educational correlation study, the impact of home environments on students' personality and academic performance could not have spread across the country, according to probability characteristics. Increasing the likelihood of personality and academic performance resilience among certain undergraduate students in Cambodia is a difficult task due to the low national probability. This finding specifically calls for a thorough focus and effort on studies that look at ways to develop and support the family environment, personality, academic performance, achievement, and resilience of university students in Cambodia.

The objective of this study was to determine which aspects of the home environment and the students themselves support personality and academic performance among Cambodian undergraduates. What shape should a home (family) environment that accommodates more Cambodian undergraduate students take in order to foster both personality and academic performance? University personality and academic performance can be developed in a number of ways. First, a history of successful university research indicates that traits like helpful and caring instructors, high standards for student performance, and a secure and orderly atmosphere are important determinants of academic performance. Research from successful universities that is based on what works for underprivileged Cambodian students appears to be more likely to predict outcomes for undergraduate students in Cambodia.

According to the current study's findings, university administrators and policymakers should be aware of the dangers of underdevelopment of personality and academic performance as well as the methods in which protective or promoting variables can be employed to mitigate these risks. To accomplish national education needs,

communities, teachers, parents, and students may be empowered through the use of intervention tactics and the optimization of university efforts. Therefore, students' personality and academic performance are positively impacted when open communication and teamwork are encouraged.

There are some vital implications in the following section for the student themselves, faculty and university, family, and the government to future improve the student's academic performance and enhance a good family environment. In conclusion, for the future study shall be conducted in different contexts, enlarged populations and sample sizes, the of use educational theories, and employing various research tools.

6.2 Implications of the Findings

The following sections discuss the implications of the findings to theory, pedagogy, institutional policy, and practices, and make suggestions regarding the application of the findings within these spheres of higher education.

6.2.1 Considering Student Engagement Theory

As stated earlier, the amount of time and effort students invest in activities that have been scientifically connected to the intended goals of higher education institutions, as well as the actions taken by institutions to encourage students to engage in these activities, are referred to as student engagement (Kuh, 2009b). Given that student involvement is recognized to be associated with favorable educational results, it is crucial to examine the student experience by looking into and measuring elements connected to student engagement (Pascarella & Terenzini, 1991; Kuh, 2009b). Because of this, implementing successful teaching strategies that encourage student participation in the learning process has emerged as a key issue in education today (Kuh, 2003; Hang, 2017; Lim, 2023). In addition to analyzing personality and academic performance, this study

concentrated on the cognitive aspect of home-based engagement, looking at the influence of the home environment and its connection to this construct. The conclusions of the study have ramifications that both reinforce and broaden the theory of student engagement.

Guided by these perspectives, positive educational outcomes are linked to elements of student involvement, including cognitive engagement (Pascarella & Terenzini, 1991; Hang, 2017; Lim, 2023). This claim is supported by the results of the current study, which showed that cognitive involvement significantly predicted academic performance as shown by GPA. The positive correlation between GPA and self-regulation, a component of cognitive engagement, provided additional evidence in favor of the idea. In other words, students' personality and academic performance improved in tandem with their enhanced self-regulation. These results are consistent with the tenets of the notion of student engagement. This area of study should be pursued further by education scholars who are interested in confirming the empirical connections between students' academic success, their home environment, and aspects of their personality engagement. This kind of study might prove that the home setting promotes engagement, which would strengthen the argument for the effectiveness of the home-based environment as a learning aid.

6.2.2 Implications for Pedagogy

Current understandings of the cognitive processes involved in learning are expanded by the theoretical implications of this study. It is well recognized that self-regulation and cognitive engagement in particular promote personality and academic performance. Teachers who emphasize process-oriented instruction have a new role in self-regulated learning, as do new methods for developing self-regulatory skills (Cassiday, 2011). While many books, articles, and reports advocate for self-regulated learning—the process by which students manage their thoughts, emotions, and behaviors

to succeed academically — and self-regulation is essential for academic success (e.g., Boekaerts, 1999; Zimmerman & Schunk, 2001; Meyer et al., 2008; Duckworth et al., 2009), few teachers adequately prepare students to learn independently (Zimmerman, 2002).

Students can learn self-regulation through goal-setting, text comprehension monitoring, self-recording, and self-instruction (verbal elaboration and self-monitoring) (Zimmerman, 1990). The results of this study recommend that this list of self-regulatory teaching tools be expanded to include methods for developing mindfulness of personality and academic performance.

6.2.3 Implications for Administration and Policy

In addition to the aforementioned pedagogical implications, this study represents a starting point for transcending practice and reaching a higher degree of leadership in education and administration. Adapting education to the times, the situation and the demands of society is a constant task for institutional leaders (Thomas, 2002). The development of 21st century skills and academic achievement have become national concerns in a global knowledge-based economy where competition is crucial (Hang, 2017; Lim, 2023). This study's findings provide credence to the employment of mindfulness-training methods as teaching aids that foster critical 21st century abilities and improve personality and academic performance.

Acquiring knowledge is no longer regarded as sufficient. Nowadays, the ability of students to use their knowledge is more significant than the amount of information they possess. Being successful in today's market requires not just knowledge acquisition but also the development of critical thinking abilities as well as the integration and application of knowledge. The development of interpersonal and intrapersonal abilities is necessary to have the ability to use information and skills in daily life (Hang, 2017; Lim, 2023). By

increasing students' metacognitive ability and awareness of students' thoughts and feelings, practicing mindfulness promotes the development of intrapersonal skills.

Many arguments in favor of using home-based engagement as a teaching technique to promote learning have been made throughout this document. University-wide, educational leaders should have access to professional development in areas like academic and institutional administration, academic advising, student affairs, and academic support services. The underlying support required to facilitate coordinated system-wide reforms would be provided by extending educational initiatives to encompass various aspects of the system. Administrative assistance, for instance, could supply the tools required to carry out the previously recommended programming, professional development, and service-oriented projects. This kind of inclusive system-wide strategy, which includes both implementation and teaching, has the potential to promote a culture shift that is more supportive of and consistent with the guiding principles of engaged citizenship, even though change does not happen overnight.

New findings in contemplative education call into question the existing epistemological underpinnings of learning, which forces educational leaders to reconsider higher educational institutional (HEI) aims and consider what the modern educational objectives are. The intended and valued learning outcomes within the institution are intrinsically linked to the educational goals (Hang, 2017). The HEI's mission, vision, and values serve as the foundation for learning outcomes overall (Hang, 2017). The vision, values, and educational philosophy of campus leaders are what translate into the mission, policy, and programming of the institution, which is why their position is so crucial.

6.3 Recommendations

6.3.1 Recommendations for Future Practices

It is now a national responsibility to appropriately prepare students for life in the twenty-first century in an increasingly knowledge-based economy. As times have evolved, so too have attitudes about the educational process. Consequently, the higher education system has adopted innovative methods of instruction. Today's focus on personality and academic performance makes it crucial to consider how innovative home-based methods could improve learning. Yet, the researcher is only now starting to look into how contemplative activities could affect students' personalities and academic performance. There are some key recommendations for future practices as follows:

1. According to the main findings, students' academic performance was at an average level. As a consequence of the research presented, it was also revealed that the performance of students was not quite as good in their academic records. The disadvantages of lower academic performance could impact their higher education journey or scholarship opportunities, and future careers. In addition, students themselves should try harder to get better performance in academics in order to succeed in their prospective careers, continue higher education, and have a bright future in order to develop their society and nation.

2. The levels of parents' education, the parents' occupation, and the family's monthly income were low. Therefore, parents' education is one of the key factors in their students' academic performance. So, it is strongly advised that adult education programs should be made effective at the village level in order to improve the community's illiteracy rate. The government should also launch a widespread information campaign to inform parents of the value of education. In addition, the government should increase the amount of grants and scholarships given to students from low-income families in order to

keep them in school and improve their academic performance; also, an educational loan advancement program for parents should also be established to help them educate their children in schools. Last, the government should also work to improve the socioeconomic well-being of its citizens, as this will significantly raise living standards and have a significant impact on parents' income levels as they will need to earn more to support the welfare of their children in schools.

3. Because parents are the main individuals responsible for raising children from birth in every community, the family is acknowledged as a significant socialization force. Encouraging healthy parent-child interactions in family situations is the priority in building good family relations. In order to create a great parent-child communication and family environment, faculty and universities could encourage parents to listen to their children's opinions, keep up with the times, improve their ability to accept new things, new dynamics, and new lifestyles, and avoid adherence to old ways and parental authority.

6.3.2 Recommendations for Future Research

The results of this study offer concepts for a number of new research directions. Thus, the following recommendations for additional future research are made:

1. Future research should consider being conducted in different contexts, using various educational theories, and employing other statistical tools (e.g., a mixed-method study design should be employed).

2. Future research might want to look more closely at how intersecting identities either support or further impede collaboration between the home and the institution. The research on home-institute collaboration now hardly ever addresses the relationship between low and high socioeconomic positions. A deeper comprehension of the obstacles

to home-institute collaboration, in particular teacher participation, may be crucial as this group grows.

3. Future research needs to explore the role of technology in supporting academic performance motivation and use qualitative research methods to gain deeper insights. This will enhance support structures and policies tailored to the unique needs of undergraduate students.

4. Future research could be either longitudinal or experimental designs to investigate the causal relationship between individual characteristics of undergraduate students affect their personality and how it affects their academic performance. Doing so would allow for the correlations that have been shown by this study to be built on for developmental purposes.

5. Future researchers could replicate their study in another setting or sample in order to verify the results of this present study. In addition, it is advised that larger sample sizes be used in future research, and data should be collected from a variety of universities, to increase the study's generalizability in a Cambodian context.

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APPENDICES

Appendix A: Research Instrument

Research Questionnaire
Entitled
**HOME ENVIRONMENT ON PERSONALITY AND ACADEMIC PERFORMANCE
AMONG UNDERGRADUATES IN CAMBODIA**

Dear Participants,

I am, **HENG SEREY RATHANA**, currently pursuing doctoral study at the University of Cambodia (UC). Meanwhile, I am conducting my dissertation research study on the topic of “**HOME ENVIRONMENT ON PERSONALITY AND ACADEMIC PERFORMANCE AMONG UNDERGRADUATES IN CAMBODIA**” under the supervision of **Dr. Chhourn Bunhoeun**, the first advisor, and **Dr. Loch Ratana**, the second advisor.

I am currently in the stage of collecting data. The purpose of this letter is to request that you participate in my study by responding to the research surveyed questionnaire. This questionnaire measures the ways that you think and believe in what the home environment sub dimension variable influencing on undergraduates’ personality and academic performance among the university in Cambodia. Realizing that this is a busy time of the year, I especially appreciate your cooperation to complete the questionnaire.

Instruction:

1. This questionnaire series contains 4 parts:

- Part- A: Demographic Variable Information
- Part- B: Family Relations
- Part- C: Personality
- Part- D: Academic Performance

2. Please kindly express your actual opinions to respond to the questionnaire as your self-rating. While your participation is entirely voluntary, I hope that you will provide your perspective so that we have quality data from which to determine the concerns and interests of your home environment, personality, and academic performance. I want to ensure you that your responses will be treated confidential and your personal responses will remain anonymous. I am interested in the information only in the aggregate form. Only the researcher of this study will have access to it.

I feel very grateful for your kind cooperation and thank you for participating in this research project.

HENG SEREY RATHANA

Researcher
(Ph.D. Candidate in Educational Administration)

PART- A: DEMOGRAPHIC VARIABLE INFORMATION

Instruction: This instrument is designed to provide you with an opportunity to express your opinions about demographic information. There are no right or wrong responses, so do not hesitate to mark the statements as freely and honestly as possible. Please **DO NOT** record your name on this document. Your responses will be kept confidential.

Please put a tick (✓) into the box ☐ and/or write your real set of information in the blank that best describes you.

1. Faculty/ College/ School:
2. Year:
.....
3. Gender Male ☐ Female ☐
4. Age:
5. Father's Education:
6. Mother's Education:
7. Father's Occupation:
8. Mother's Occupation:
9. Family's monthly income:
10. Do your parents own a house?.....
11. What is the size of your house?
12. Do you have a servant at home?.....
13. Do you use any transport to go to your university?
14. Tick a mark of the facility you have at home:
Television ☐
Telephone ☐
Computer ☐
Internet ☐
Air conditioner ☐
15. How many brother and sisters do you have?
16. What is your birth order (Position in sibling)?
17. What is the type of your family, nuclear or joint?

PART- B: FAMILY RELATIONS, adopted from Hudson (1982) with Cronbach's Alpha=0.82.

There are twenty-four statements in the questionnaire below. Please read each statement and write the response (**1, 2, 3, 4, or 5**) that tells what you actually think, believe, and feel about how your family relation. Please complete all sections of this questionnaire, making only **ONE** response unless asked to do otherwise. The criteria for the responses include:

- '1' means that 'He/she **none of the time** do this'.
- '2' means that 'He/she does this **a little of the time**.
- '3' means that 'He/she **some of the time** does this'. (About 50% of the time)
- '4' means that 'He/she **a good part of the time** does this'.
- '5' means that 'He/she **all of Time** does this'.

No.	Statement of Family Relation	Level of Response				
		1	2	3	4	5
1.	The members of my family really care about each other					
2.	I think my family is terrific					
3.	My family gets on my nerves					
4.	I really enjoy my family					
5.	I really can depend on my family					
6.	I really do not care to be around my family					
7.	I wish I was not the part of this family					
8.	I get along well with my family					
9.	Member of my family argue too much					
10.	There is no sense of closeness in my family					
11.	My family doesn't understand me					
12.	I feel like a stranger in my family					
13.	There is too much hatred in my family					
14.	My family is well respected by others who know us					
15.	There seems a lot of friction in my family					
16.	There is a lot of love in my family					
17.	Members of my family get along well together					
18.	Life in my family is generally unpleasant					

19.	My family is a great joy to me					
20.	I feel proud of my family					
21.	Other families seem to get along better than ours					
22.	My family is a real source of comfort to me					
23.	I feel left out of my family					
24.	My family is an unhappy one					

PART- C: PERSONALITY, adopted from Goldberg (1999) with Cronbach's alpha=0.792.

There are forty-one statements in the questionnaire below. Please read each statement and write the response (**1, 2, 3, 4, or 5**) that tells what you actually think, believe, and feel about how your personality. Please complete all sections of this questionnaire, making only **ONE** response unless asked to do otherwise. The criteria for the responses include:

'1' means that 'He/she **very inaccurate** do this'.

'2' means that 'He/she does this **moderately inaccurate**'.

'3' means that 'He/she **neither accurate nor inaccurate** does this'.

'4' means that 'He/she **moderately accurate** does this'.

'5' means that 'He/she **very Accurate** does this'.

No.	Type of Personality	Statement of Personality	Level of Response				
			1	2	3	4	5
1.	Openness	Tend to vote for conservative political candidates					
2.		Believe in the importance of art					
3.		Am not interested in abstract ideas					
4.		Tend to vote for liberal political candidate					
5.		Avoid philosophical discussions					
6.		Don't enjoy going to art museums					
7.		Don't like art					
8.	Extroversion	Am the life of the party					
9.		Am skilled in handling social situations					
10.		Don't like to draw attention to myself					
11.		Make friend easily					

12.		Know how to captivate people					
13.		Keep in the background					
14.		Don't talk a lot					
15.		Shirk my duties					
16.		Don't see things through					
17.	Conscientiousness	Am always prepared					
18.		Make plans and stick to them					
19.		Carry out my plans					
20.		Do just enough work to get by					
21.		Find it difficult to get down to earth					
22.		Pay attention to details					
23.		Waste my time					
24.		Get chore done right away					
25.		Shirk my duties					
26.		Don't see things through					
27.	Emotion Stability	Have frequent mood swings					
28.		Am not easily bothered by things					
29.		Dislike myself					
30.		Seldom feel blue					
31.		Panic easily					
32.		Feel comfortable					
33.		Am often down in the dumps					
34.		Often feel blue					
35.	Agreeableness	Respect others					
36.		Insult People					
37.		Believe that others have good intentions					
38.		Accept people as they are					
39.		Get back at others					
40.		Cut others to pieces					
41.		Have a good word for everyone					

PART- D: ACADEMIC PERFORMANCE, adopted from Kyoshaba (2009) with Cronbach's alpha=0.778.

There are 5 statements in the questionnaire below. Please read each statement and write the response (**1, 2, or 3**) that tells what you actually think, believe, and feel about how your academic performance. Please complete all sections of this questionnaire, making only **ONE** response unless asked to do otherwise. The criteria for the responses include:

‘**1**’ means that ‘He/she is doing **poor** on this’.

‘**2**’ means that ‘He/she is doing **fair** on this’.

‘**3**’ means that ‘He/she is doing **good** on this’.

No.	Academic Performance	Level of Response		
		1	2	3
1.	In mid-term tests			
2.	In take-home course works			
3.	In your previous semesters			
4.	In core/compulsory course			
5.	In optional course			

I would like to express my profound thank to your invaluable time spending and collaboration to answering this questionnaire.

ប្រធានបទថ្នាក់បណ្ឌិត

បរិយាកាសគ្រួសារទៅលើបុគ្គលិកលក្ខណៈនិងលទ្ធផលគុណភាពក្នុងចំណោមនិស្សិតថ្នាក់ឧត្តមសិក្សាក្នុងប្រទេសកម្ពុជា

សូមគោរពជូន: និស្សិតជាអ្នកចូលរួមជាទីរាប់អាន!

ខ្ញុំបាទឈ្មោះ: **ហេង សេរីរតនា** ជាបេក្ខជនបណ្ឌិត ជំនាញ **រដ្ឋបាលអប់រំ** នៅសាកលវិទ្យាល័យកម្ពុជា កំពុងធ្វើការស្រាវជ្រាវនិងសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត ក្រោមប្រធានបទ “បរិយាកាសគ្រួសារទៅលើបុគ្គលិកលក្ខណៈ និងលទ្ធផលគុណភាពក្នុងចំណោមនិស្សិតថ្នាក់ឧត្តមសិក្សាក្នុងប្រទេសកម្ពុជា” ដែលមានលោកបណ្ឌិត **ឈួន ម៉ុងហឿន** ជាសាស្ត្រាចារ្យដឹកនាំទី១ និងលោកបណ្ឌិត **ឡូច រតនា** ជាសាស្ត្រាចារ្យដឹកនាំទី២។

ខ្ញុំបាទ កំពុងស្ថិតក្នុងដំណាក់កាលប្រមូលទិន្នន័យ។ ខ្ញុំបាទ សូមអនុញ្ញាតគោរពអញ្ជើញ លោកគ្រូអ្នកគ្រូ ដើម្បីចូលរួមក្នុងការផ្តល់ចម្លើយដ៏សុក្រិតលើកម្រងសំណួរទាក់ទងនឹងការវាស់ស្ទង់ពីទស្សនៈនិងការយល់ដឹង របស់និស្សិតលើ បរិយាកាសគ្រួសារ បុគ្គលិកលក្ខណៈ និងលទ្ធផលគុណភាព។ ខ្ញុំបាទ សូមថ្លែងអំណរគុណយ៉ាងជ្រាលជ្រៅចំពោះកិច្ចសហការខ្ពស់របស់និស្សិតទាំងអស់ក្នុងការផ្តល់នូវពេលវេលាបំពេញកម្រងសំណួរទាំងអស់នេះ ទោះបីជាមានការកិច្ចមាញញឹកក្នុងការសិក្សាយ៉ាងណាក៏ដោយ។

សេចក្តីណែនាំ

១- កម្រងសំណួរនេះ មានបួន ផ្នែក:

ផ្នែក-A : ព័ត៌មានប្រជាសាស្ត្ររបស់និស្សិត

ផ្នែក-B: ទំនាក់ទំនងគ្រួសារ

ផ្នែក-C: បុគ្គលិកលក្ខណៈ

ផ្នែក-D: លទ្ធផលសិក្សាពិការ

២- សូមអានសេចក្តីណែនាំការឆ្លើយកម្រងសំណួរគ្រប់ផ្នែកនីមួយៗដោយការយកចិត្តទុកដាក់។ សូមមេត្តាឆ្លើយឱ្យបានគ្រប់សំណួរតាមការពិតជាក់ស្តែង និងត្រួតពិនិត្យភាពរៀបរយមុននឹងប្រគល់ឱ្យអ្នកស្រាវជ្រាវវិញដោយមិនចាំបាច់បញ្ជាក់ឈ្មោះនិងនាមត្រកូលឡើយ។ ខ្ញុំបាទ សូមធានាអះអាងថា រាល់ចម្លើយរបស់និស្សិត នឹងរក្សាទុកជាសម្ងាត់បំផុត។ ខ្ញុំបាទ សូមថ្លែងអំណរគុណយ៉ាងជ្រាលជ្រៅចំពោះកិច្ចសហការរបស់និស្សិត ចំពោះការចូលរួមក្នុងការស្រាវជ្រាវនេះ។

ហេង សេរីរតនា

អ្នកស្រាវជ្រាវ

(បេក្ខជនបណ្ឌិត ជំនាញ រដ្ឋបាលអប់រំ)

ផ្នែក-A: ព័ត៌មានប្រជាសាស្ត្ររបស់និស្សិត

ការណែនាំ៖ កម្រងសំណួរនេះ ត្រូវបានរៀបចំឡើងដើម្បីផ្តល់ឱកាសជូននិស្សិត ក្នុងការបញ្ចេញមតិពីបរិយាកាសគ្រួសារ បុគ្គលិកលក្ខណៈ និងលទ្ធផលគុសកា។ សូមបញ្ជាក់ថា គ្មានចម្លើយ ខុស ឬ ត្រូវនោះទេ។ ដូច្នេះ សូមកុំស្ទាក់ស្ទើរក្នុងការជ្រើសរើសចម្លើយ ក៏ដូចជាសូមឆ្លើយដោយសេរីនិងស្មោះត្រង់តាមដែលអាចធ្វើទៅបាន។

សូម គូសសញ្ញាជីក (✓) ទៅក្នុងប្រអប់ ☐ ក្នុងចន្លោះ ឬសរសេរដែលអាចរៀបរាប់បានយ៉ាងល្អពីនិស្សិតគ្រប់រូប។

១. មហាវិទ្យាល័យ/សាលា៖
២. ឆ្នាំទី៖
៣. ភេទ៖ ប្រុស ☐ ស្រី ☐
៤. អាយុ៖
៥. កំរិតសិក្សារបស់ឪពុក៖
៦. កំរិតសិក្សារបស់ម្តាយ៖
៧. វិជ្ជាជីវៈរបស់ឪពុក៖
៨. វិជ្ជាជីវៈរបស់ម្តាយ៖
៩. ប្រាក់ចំណូលប្រចាំខែក្នុងគ្រួសារ៖
១០. តើឪពុកម្តាយអ្នកមានផ្ទះផ្ទាល់ខ្លួនទេ?
១១. តើផ្ទះរបស់អ្នកទំហំបែបណា?
១២. តើអ្នកមានអ្នកបម្រើក្នុងផ្ទះដែរឬទេ?
១៣. តើអ្នកមានយានជំនិះទៅរៀននៅសកលវិទ្យាល័យទេ?
១៤. ចូរគូសសញ្ញា ជីក សម្រាប់សម្ភារៈប្រើប្រាស់ដែលអ្នកមានក្នុងផ្ទះ៖

ទូរទស្សន៍	☐
ទូរសព្ទ	☐
កុំព្យូទ័រ	☐
អ៊ិនធឺណិត	☐
ម៉ាស៊ីនត្រជាក់	☐
១៥. តើអ្នកមានបងប្អូនប្រុស និងស្រី ប៉ុន្មាននាក់?
១៦. តើអ្នកជាកូនទីប៉ុន្មាន?
១៧. តើគ្រួសារអ្នកជាប្រភេទ គ្រួសារតូច ឬ គ្រួសារធំ?

ផ្នែក-B: ទំនាក់ទំនងក្នុងគ្រួសារ

សេចក្តីណែនាំ៖ ក្នុងឧបករណ៍ស្រាវជ្រាវ-B នេះ មានខ្លឹមសារប្រយោគលើកឡើងចំនួន២៤ ចំណុច នៅក្នុងកម្រងសំណួរខាងក្រោម។ សូមអានខ្លឹមសារនីមួយៗហើយសរសេរចម្លើយ (១, ២, ៣, ៤, ឬ ៥) ដែលប្រាប់ពីអ្វី ដែលនិស្សិត យល់ឃើញថាត្រូវនិងនិស្សិត។ សូមបំពេញកម្រងសំណួរនេះឱ្យបានគ្រប់ចំណុច ដោយជ្រើសរើសយក **ចម្លើយតែមួយគត់**។

សូម គូសសញ្ញាជីក (✓) ទៅក្នុងប្រអប់ស្តាំដៃតាមទស្សនៈនិងការយល់ដឹងក្នុងកម្រិតណាមួយតាមលក្ខណៈវិនិច្ឆ័យសម្រាប់ការឆ្លើយកម្រងសំណួរ មានដូចខាងក្រោម៖

- លេខ ៥ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត **គ្រប់ពេល** ឬជាប្រចាំគ្រប់ពេលយ៉ាងទៀងទាត់ ពោលគឺក្នុងក្រមិតពី ៩១-១០០%
- លេខ ៤ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត **មានពេលច្រើន** ឬស្ទើរគ្រប់ពេល ពោលគឺក្នុងក្រមិតពី ៦១-៩០%
- លេខ ៣ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត **មានពេលខ្លះ** ឬអនុវត្តខ្លះ មិនអនុវត្តខ្លះ ពោលគឺក្នុងក្រមិតពី ៤១-៦០%
- លេខ ២ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត **មានពេលតិចតួច** ឬអនុវត្តម្តងម្កាលក្នុងកម្រិតតិចតួច ពោលគឺក្នុងក្រមិតពី ១១-៤០%
- លេខ ១ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត **មិនដែលមានពេល** មិនដែលអនុវត្តទាល់តែសោះ ឬធ្វើម្តងម្កាលក្នុងកម្រិតតិចបំផុត ពោលគឺក្នុងក្រមិតពី ០-១០%

លំដាប់	ទស្សនៈលើទំនាក់ទំនងគ្រួសារ	កម្រិតការឆ្លើយតប				
		១	២	៣	៤	៥
១-	សមាជិកក្នុងគ្រួសារខ្ញុំពិតជាយកចិត្តទុកដាក់ចំពោះគ្នាទៅវិញទៅមក					
២-	ខ្ញុំគិតថាគ្រួសាររបស់ខ្ញុំអស្ចារ្យ					
៣-	គ្រួសាររបស់ខ្ញុំធ្វើអោយខ្ញុំម្តេចម្តេច					
៤-	ខ្ញុំពិតជារីករាយជាមួយគ្រួសាររបស់ខ្ញុំ					
៥-	ខ្ញុំពិតជាអាចពឹងពាក់លើគ្រួសាររបស់ខ្ញុំ					
៦-	ខ្ញុំពិតជាមិនខ្វល់ នៅជុំគ្នាជាមួយគ្រួសាររបស់ខ្ញុំ					
៧-	ខ្ញុំសង្ឃឹមថា ខ្ញុំមិនមែនជាផ្នែកមួយនៃគ្រួសាររបស់ខ្ញុំ					
៨-	ខ្ញុំចុះសំរុងយ៉ាងខ្លាំងជាមួយគ្រួសាររបស់ខ្ញុំ					
៩-	សមាជិកគ្រួសាររបស់ខ្ញុំឈ្លានពានខ្លាំង					

ល.រ	ទស្សនៈលើទំនាក់ទំនងគ្រួសារ	កម្រិតការឆ្លើយតប				
		១	២	៣	៤	៥
១០-	គ្រួសាររបស់ខ្ញុំ មិនមានភាពស្ថិតស្ថាលគ្នាទេ					
១១-	គ្រួសាររបស់ខ្ញុំមិនយល់ពីខ្ញុំទេ					
១២-	ខ្ញុំមានអារម្មណ៍ថា ខ្ញុំជាមនុស្សចម្លែកក្នុងគ្រួសាររបស់ខ្ញុំ					
១៣-	មានការស្អប់គ្នាយ៉ាងច្រើនក្នុងគ្រួសាររបស់ខ្ញុំ					
១៤-	គ្រួសាររបស់ខ្ញុំទទួលបានការគោរពយ៉ាងខ្លាំងពីអ្នកដែលស្គាល់យើង					
១៥-	វាហាក់ដូចជាមានការមិនចុះសំរុងគ្នាយ៉ាងខ្លាំងក្នុងគ្រួសាររបស់ខ្ញុំ					
១៦-	មានសេចក្តីស្រឡាញ់យ៉ាងច្រើនក្នុងគ្រួសាររបស់ខ្ញុំ					
១៧-	សមាជិកក្នុងគ្រួសាររបស់ខ្ញុំមានភាពជិតស្និទ្ធជាមួយគ្នា					
១៨-	ជីវិតក្នុងគ្រួសាររបស់ខ្ញុំ ជាទូទៅមិនរីករាយទេ					
១៩-	គ្រួសាររបស់ខ្ញុំជា សេចក្តីត្រេកអររំលឹកសម្រាប់ខ្ញុំ					
២០-	ខ្ញុំមានអារម្មណ៍ មានមោទនៈភាពចំពោះគ្រួសាររបស់ខ្ញុំ					
២១-	គ្រួសារដទៃហាក់ដូចជាមានភាពស្ថិតស្ថាលជាងគ្រួសាររបស់យើង					
២២-	គ្រួសាររបស់ខ្ញុំជាប្រភពដ៏ពិតប្រាកដសម្រាប់ភាពកក់ក្តៅរបស់ខ្ញុំ					
២៣-	ខ្ញុំមានអារម្មណ៍ថានៅឃ្លាតឆ្ងាយពីគ្រួសាររបស់ខ្ញុំ					
២៤-	គ្រួសាររបស់ខ្ញុំជាគ្រួសារមួយដែរគ្មានសុភមង្គល					

ផ្នែក-C: បុគ្គលិកលក្ខណៈ

សេចក្តីណែនាំ:

ក្នុងឧបករណ៍ស្រាវជ្រាវ-C នេះ មានខ្លឹមសារប្រយោគលើកឡើងចំនួន៤១ ចំណុច នៅក្នុងកម្រងសំណួរខាងក្រោម។ សូមអានខ្លឹមសារនីមួយៗហើយសរសេរចម្លើយ (១, ២, ៣, ៤, ឬ ៥) ដែលប្រាប់ពីអ្វីដែលនិស្សិតយល់ឃើញថាបានធ្វើឬអនុវត្តជាប្រចាំ។ សូមបំពេញកម្រងសំណួរនេះឱ្យបានគ្រប់ចំណុច ដោយជ្រើសរើសយក **ចម្លើយតែមួយគត់**។

សូម គូសសញ្ញាជើក (✓) ទៅក្នុងប្រអប់ស្តាំដៃតាមទស្សនៈនិងការយល់ដឹងក្នុងកម្រិតណាមួយតាមលក្ខណៈវិនិច្ឆ័យសម្រាប់ការឆ្លើយកម្រងសំណួរ មានដូចខាងក្រោម៖

លេខ ៥ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត **ត្រឹមត្រូវខ្លាំង** ឬជាប្រចាំគ្រប់ពេលយ៉ាងទៀងទាត់ ពោលគឺក្នុងក្រមិតពី ៩១-១០០%

- លេខ ៤ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត ត្រឹមត្រូវខ្លះ ឬស្ទើរគ្រប់ពេល ពេលគឺក្នុងក្រមិតពី ៦១-៩០%
- លេខ ៣ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត ធម្មតា ឬអនុវត្តខ្លះ មិនអនុវត្តខ្លះ ពេលគឺក្នុងក្រមិតពី ៤១-៦០%
- លេខ ២ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត មិនត្រឹមត្រូវខ្លះ ឬអនុវត្តម្តងម្កាលក្នុង កម្រិតតិចតួច ពេលគឺក្នុងក្រមិតពី ១១-៤០%
- លេខ ១ សំដៅដល់ ការអនុវត្តតាមខ្លឹមសារគោលគំនិត មិនត្រឹមត្រូវខ្លាំង មិនដែលអនុវត្តទាល់តែ សោះ ឬធ្វើម្តងម្កាលក្នុងកម្រិតតិចបំផុត ពេលគឺក្នុងក្រមិតពី ០-១០%

លំដាប់	ប្រភេទបុគ្គលិកលក្ខណៈ	ប្រយោគបុគ្គលិកលក្ខណៈ	កម្រិតការឆ្លើយតប				
			១	២	៣	៤	៥
១-	បើកទូលាយ	មានទំនោរបោះឆ្នោតសម្រាប់បេក្ខជននយោបាយអភិរក្សនិយម					
២-		ជឿជាក់ទៅលើសារៈសំខាន់នៃសិល្បៈ					
៣-		មិនចាប់អារម្មណ៍លើគំនិតដែរពិបាកយល់					
៤-		មានទំនោរបោះឆ្នោតសម្រាប់បេក្ខជននយោបាយសេរីនិយម					
៥-		ចៀសវាងការពិភាក្សាលើទស្សនៈវិជ្ជា					
៦-		មិនរីករាយនិងទៅទស្សនាសារមន្ទីរសិល្បៈ					
៧-		មិនចូលចិត្តសិល្បៈ					
៨-	រូសរាយមានទំនុកចិត្ត	ជីវិតរបស់ខ្ញុំគឺជាការជួបជុំកំសាន្ត					
៩-		ខ្ញុំមានជំនាញដោះស្រាយនៅស្ថានភាពសង្គម					
១០-		មិនចូលចិត្តការទាក់ទាញចំណាប់អារម្មណ៍ខ្លួនឯង					
១១-		ងាយស្រួលក្នុងការរាប់អានមិត្តភក្តិ					
១២-		ដឹងពីវិធីទាក់ទាញមនុស្ស					
១៣-		លាក់នៅរាល់ប្រវត្តិរបស់ខ្លួន					
១៤-		មិននិយាយច្រើន					
១៥-		គេចវេសពីកាតូកិច្ចរបស់ខ្លួន					
១៦-		មើលមិនបានវែងឆ្ងាយ					
១៧-	មនសិការ	ខ្ញុំតែងតែរៀបចំជានិច្ច					
១៨-		រៀបចំផែនការហើយផ្ដោតលើវា					
១៩-		អនុវត្តផែនការរបស់ខ្ញុំ					
២០-		បំពេញការងារអោយរួចតែកំរិតមធ្យម					

ល.រ	ប្រភេទបុគ្គលិកលក្ខណៈ	ប្រយោគបុគ្គលិកលក្ខណៈ	កម្រិតការឆ្លើយតប				
			១	២	៣	៤	៥
២១-		ជួបបញ្ហាលំបាកដោយស្វែងរកដំណោះស្រាយ					
២២-		ផ្ដោតការយកចិត្តទុកដាក់លើព័ត៌មានលំអិត					
២៣-		ខ្លះខាយពេលវេលា					
២៤-		បំពេញកិច្ចការងារផ្ទះក្លាមៗ					
២៥-		គេចវេសពីកាតព្វកិច្ចរបស់ខ្លួន					
២៦-		មើលមិនបានវែងឆ្ងាយ					
២៧-	ស្ថេរភាពអារម្មណ៍	មានអារម្មណ៍ប្រែប្រួលមិនទៀងទាត់					
២៨-		រឿងផ្សេងៗមិនងាយនិងរំខានខ្ញុំ					
២៩-		មិនចូលចិត្តខ្លួនឯង					
៣០-		កំរមានអារម្មណ៍ស្រពាប់ស្រពោន					
៣១-		ងាយនិងភ័យស្លន់ស្លា					
៣២-		មានអារម្មណ៍កក់ក្ដៅ					
៣៣-		មានអារម្មណ៍កើតទុក្ខខ្លាំង					
៣៤-		ញឹកញាប់មានអារម្មណ៍ស្រពាប់ស្រពោន					
៣៥-	ផ្តល់ភាពរីករាយ	គោរពអ្នកដទៃ					
៣៦-		ប្រមាថអ្នកដទៃ					
៣៧-		ជឿជាក់លើអ្នកដទៃថាមានបំណងល្អ					
៣៨-		ទទួលយកមនុស្សដូចអ្វីដែលពួកគេមាន					
៣៩-		សងសឹកលើអ្នកដទៃ					
៤០-		យកឈ្នះទាំងស្រុងលើនរណាម្នាក់					
៤១-		មានពាក្យពេជ្រនីតិពោះសម្រាប់មនុស្សរាល់គ្នា					

ផ្នែក-D: លទ្ធផលគម្រោង

សេចក្តីណែនាំ:

ក្នុងឧបករណ៍ស្រាវជ្រាវ-D នេះ មានខ្លឹមសារប្រយោគលើកឡើងចំនួន៥ ចំណុច នៅក្នុងកម្រងសំណួរខាងក្រោម។ សូមអានខ្លឹមសារនីមួយៗហើយសរសេរចម្លើយ (១, ២, ឬ ៣) ដែលប្រាប់ពីអ្វីដែលនិស្សិត យល់ឃើញថាបានធ្វើឬអនុវត្តជាប្រចាំ។ សូមបំពេញកម្រងសំណួរនេះឱ្យបានគ្រប់ចំណុច ដោយជ្រើសរើសយក **ចម្លើយតែមួយគត់**។

សូម គូសសញ្ញាជីក (✓) ទៅក្នុងប្រអប់ស្តាំដៃតាមទស្សនៈនិងការយល់ដឹងក្នុងកម្រិតណាមួយតាមលក្ខណៈវិនិច្ឆ័យសម្រាប់ការឆ្លើយកម្រងសំណួរ មានដូចខាងក្រោម៖

- លេខ ៣ សំដៅដល់

ការអនុវត្តតាមខ្លឹមសារគោលគំនិត ល្អ ឬអនុវត្តខ្លះ មិនអនុវត្តខ្លះ
ពេលគឺក្នុងក្រមិតពី ៨០-១០០%
- លេខ ២ សំដៅដល់

ការអនុវត្តតាមខ្លឹមសារគោលគំនិត មធ្យម ឬអនុវត្តម្តងម្កាលក្នុងកម្រិតតិចតួច
ពេលគឺក្នុងក្រមិតពី ៧៥-៧៩%
- លេខ ១ សំដៅដល់

ការអនុវត្តតាមខ្លឹមសារគោលគំនិត មិនល្អ មិនដែលអនុវត្តទាល់តែសោះ ឬធ្វើ
ម្តងម្កាលក្នុងកម្រិតតិចបំផុត ពេលគឺក្នុងក្រមិតពី ០-៧៤%

ល.រ	លទ្ធផលគុសកា	កម្រិតការឆ្លើយតប		
		១	២	៣
១-	នៅក្នុងតេស្តមេរៀន			
២-	នៅក្នុងមុខវិជ្ជាសិក្សា			
៣-	នៅក្នុងប្រលងពាក់កណ្តាលឆមាស និង ប្រចាំឆមាស			
៤-	នៅក្នុងមុខវិជ្ជាគោល			
៥-	ក្នុងពិន្ទុជារួមជាមធ្យម			

សូមថ្លែងអំណរគុណដល់និស្សិតទាំងអស់ ដែលបានជួយបំពេញកម្រងសំណួរខាងលើទាំង

Appendix B: List of Experts IOC

LIST OF EXPERTS RATING SCORE ON CONTENT VALIDITY TO APPROVE THE SURVEYED QUESTIONNAIRES BOTH ENGLISH AND KHMER

No	Name	Sex	role	Institute	Approval
1	Sreang Heak, PhD	M	Postdoctoral Research Fellow	University of Hawaii at Manoa, Hawaii, USA	Approved
2	Hin Sovannara, PhD	M	Researcher	University of Southern Brittany, FRANCE	Approved
3	Doung Piseth, PhD	M	Head of Research Unit at ITC	Tokyo Institute of Technology, JAPAN	Approved
4	Khy Kimleng, PhD	M	Head of Research Unit at MLMUPC	Chulalongkorn University, THAILAND	Approved

**APPROVAL FOR THE SURVEY QUESTIONNAIR DUE TO THE SCORE +1
FOR ALL ITEMS IN EACH PART OF RESERCH INSTRUMENT.**



សាកលវិទ្យាល័យកម្ពុជា
មហាវិទ្យាល័យអប់រំ

សូមគោរពជូន
Sreang Heak, PhD

កម្មវត្ថុ៖ ស្នើសុំជាអ្នកជំនាញក្នុងការ ពិនិត្យ កែសម្រួល និងផ្តល់នៅសុពលភាពទៅលើកម្រងសំណួរ
សិក្សាស្រាវជ្រាវនិក្ខេបបទថ្នាក់បណ្ឌិត។

យោងតាមកម្មវត្ថុស្នើសុំខាងលើ យើងខ្ញុំមានកិត្តិយសសូមជម្រាបលោកបណ្ឌិតជ្រាបថា លោក
ហេង សេរីរតនា ជា **បេក្ខជនបណ្ឌិត** ជំនាញ **រដ្ឋបាលអប់រំ** នៅសាកលវិទ្យាល័យកម្ពុជា
បាននិងកំពុងធ្វើការសិក្សាស្រាវជ្រាវទៅលើប្រធានបទ **"បរិយាកាសគ្រួសារទៅលើបុគ្គលិកលក្ខណៈនិង
លទ្ធផលគុសកានៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា"** ដែរយើងខ្ញុំជាសាស្ត្រាចារ្យដឹកនាំផ្ទាល់។

ក្នុងការសិក្សាស្រាវជ្រាវនេះនិស្សិតបានស្នើសុំប្រើប្រាស់កម្រងសំណួរដែលធ្លាប់បានប្រើប្រាស់
ដោយអ្នកស្រាវជ្រាវមុន ដែរស្ថិតនៅបរិបទខុសគ្នា ហើយធ្វើការបកប្រែជាភាសាជាតិខ្មែរ ក្នុងគោលបំណង
ប្រមូលយកទិន្នន័យជាមួយនិងសំណាកគំរូស្រាវជ្រាវនៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា។ ដោយ
ហេតុនេះ ដើម្បីធានាបាននៅសុពលភាពនៃឧបករណ៍ស្រាវជ្រាវ យើងខ្ញុំសូមគោរពជូនលោកបណ្ឌិតជា
អ្នកជំនាញស្រាវជ្រាវ វាយតម្លៃពិន្ទុនិងផ្តល់ជាសុពលភាពលើកម្រងសំណួរដែលបានភ្ជាប់ជូននេះ។

សូមលោកបណ្ឌិត មេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីយើងខ្ញុំ។

ថ្ងៃសុក្រ ១០រោច ខែជេស្ឋ ឆ្នាំខាល ចត្វាស័ក ពុទ្ធសករាជ ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី២៤ ខែមិថុនា ឆ្នាំ២០២២

ហត្ថលេខា

សាស្ត្រាចារ្យដឹកនាំទី១

សាស្ត្រាចារ្យដឹកនាំទី២

ជូនភ្ជាប់៖កម្រងសំណួរស្រាវជ្រាវ

បណ្ឌិត **ឈួន ម៉ីនហឿន**

បណ្ឌិត **ឡុប រតនា**

លេខទំនាក់ទំនង៖ ០១២ ៩៦១ ៩៤៦/ ០៩... - - - - -



សាកលវិទ្យាល័យកម្ពុជា
មហាវិទ្យាល័យអង្គរ

សូមគោរពជូន

Hin Sovannara, PhD

កម្មវត្ថុ៖ ស្នើសុំជាអ្នកជំនាញក្នុងការ ពិនិត្យ កែសម្រួល និងផ្តល់នៅសុពលភាពទៅលើកម្រងសំណួរ
សិក្សាស្រាវជ្រាវនៃក្លឹបបទថ្នាក់បណ្ឌិត។

យោងតាមកម្មវត្ថុស្នើសុំខាងលើ យើងខ្ញុំមានកិត្តិយសសូមជម្រាបលោកបណ្ឌិតជ្រាបថា លោក
ហេង សេរីរតនា ជា **មេត្តជនបណ្ឌិត** ជំនាញ **រដ្ឋបាលអង្គរ** នៅសាកលវិទ្យាល័យកម្ពុជា
បាននិងកំពុងធ្វើការសិក្សាស្រាវជ្រាវទៅលើប្រធានបទ **"បរិយាកាសគ្រួសារទៅលើបុគ្គលិកលក្ខណៈនិង
លទ្ធផលគុសកានៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា"** ដែរយើងខ្ញុំជាសាស្ត្រាចារ្យដឹកនាំផ្ទាល់។

ក្នុងការសិក្សាស្រាវជ្រាវនេះនិស្សិតបានស្នើសុំប្រើប្រាស់កម្រងសំណួរដែលធ្លាប់បានប្រើប្រាស់
ដោយអ្នកស្រាវជ្រាវមុន ដែរស្ថិតនៅបរិបទខុសគ្នា ហើយធ្វើការបកប្រែជាភាសាជាតិខ្មែរ ក្នុងគោលបំណង
ប្រមូលយកទិន្នន័យជាមួយនិងសំណាកគំរូស្រាវជ្រាវនៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា។ ដោយ
ហេតុនេះ ដើម្បីធានាបាននៅសុពលភាពនៃឧបករណ៍ស្រាវជ្រាវ យើងខ្ញុំសូមគោរពជូនលោកបណ្ឌិតជា
អ្នកជំនាញស្រាវជ្រាវ វាយតម្លៃពិន្ទុនិងផ្តល់ជាសុកលភាពលើកម្រងសំណួរដែលបានភ្ជាប់ជូននេះ។

សូមលោកបណ្ឌិត មេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីយើងខ្ញុំ។

ថ្ងៃសុក្រ ១០រោច ខែជេស្ឋ ឆ្នាំខាល ចត្វាស័ក ពុទ្ធសករាជ ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី២៤ ខែមិថុនា ឆ្នាំ២០២២

ហត្ថលេខា

សាស្ត្រាចារ្យជីកនំទី១

សាស្ត្រាចារ្យជីកនំទី២

បណ្ឌិត **ឈួន ម៉ីនហឿន**

បណ្ឌិត **ឡុប រតនា**

ជូនភ្ជាប់កម្រងសំណួរស្រាវជ្រាវ

លេខទំនាក់ទំនង៖ ០១២ ៩៦១ ៩៤៦/ ០៩៣ ៩៧០ ០៣២



សាកលវិទ្យាល័យកម្ពុជា
មហាវិទ្យាល័យអប់រំ

សូមគោរពជូន
Doung Piseth, PhD

កម្មវត្ថុ៖ ស្នើសុំជាអ្នកជំនាញក្នុងការ ពិនិត្យ កែសម្រួល និងផ្តល់នៅសុពលភាពទៅលើកម្រងសំណួរ
សិក្សាស្រាវជ្រាវនិក្ខេបបទថ្នាក់បណ្ឌិត។

យោងតាមកម្មវត្ថុស្នើសុំខាងលើ យើងខ្ញុំមានកិត្តិយសសូមជម្រាបលោកបណ្ឌិតជ្រាបថា លោក
ហេង សេរីរតនា ជា **មេត្តជនបណ្ឌិត** ជំនាញ **រដ្ឋបាលអប់រំ** នៅសាកលវិទ្យាល័យកម្ពុជា
បាននិងកំពុងធ្វើការសិក្សាស្រាវជ្រាវទៅលើប្រធានបទ "បរិយាកាសគ្រួសារទៅលើបុគ្គលិកលក្ខណៈនិង
លទ្ធផលគុសកានៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា" ដែរយើងខ្ញុំជាសាស្ត្រាចារ្យដឹកនាំផ្ទាល់។

ក្នុងការសិក្សាស្រាវជ្រាវនេះនិស្សិតបានស្នើសុំប្រើប្រាស់កម្រងសំណួរដែលធ្លាប់បានប្រើប្រាស់
ដោយអ្នកស្រាវជ្រាវមុន ដែរស្ថិតនៅបរិបទខុសគ្នា ហើយធ្វើការបកប្រែជាភាសាជាតិខ្មែរ ក្នុងគោលបំណង
ប្រមូលយកទិន្នន័យជាមួយនិងសំណាកគំរូស្រាវជ្រាវនៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា។ ដោយ
ហេតុនេះ ដើម្បីធានាបាននៅសុពលភាពនៃឧបករណ៍ស្រាវជ្រាវ យើងខ្ញុំសូមគោរពជូនលោកបណ្ឌិតជា
អ្នកជំនាញស្រាវជ្រាវ វាយតម្លៃពិន្ទុនិងផ្តល់ជាសុពលភាពលើកម្រងសំណួរដែលបានភ្ជាប់ជូននេះ។

សូមលោកបណ្ឌិត មេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីយើងខ្ញុំ។

ថ្ងៃសុក្រ ១០រោច ខែជេស្ឋ ឆ្នាំខាល ចត្វាស័ក ពុទ្ធសករាជ ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី២៤ ខែមិថុនា ឆ្នាំ២០២២

ហត្ថលេខា

សាស្ត្រាចារ្យដឹកនាំទី១

សាស្ត្រាចារ្យដឹកនាំទី២

បណ្ឌិត **ឈួន ប៊ុនហឿន**

បណ្ឌិត **ហ៊ុន រតនា**

ជូនភ្ជាប់កម្រងសំណួរស្រាវជ្រាវ

លេខទំនាក់ទំនង៖ ០១២ ៩៦១ ៩៤៦/ ០៩៣ ៩៧០ ០៣២



សាកលវិទ្យាល័យកម្ពុជា
មហាវិទ្យាល័យអង្គរ

សូមគោរពជូន
Khy Kimleng, PhD

កម្មវត្ថុ៖ ស្នើសុំជាអ្នកជំនាញក្នុងការ ពិនិត្យ កែសម្រួល និងផ្តល់នៅសុពលភាពទៅលើកម្រងសំណួរ
សិក្សាស្រាវជ្រាវនៃក្លែងបបទថ្នាក់បណ្ឌិត។

យោងតាមកម្មវត្ថុស្នើសុំខាងលើ យើងខ្ញុំមានកិត្តិយសសូមជម្រាបលោកបណ្ឌិតជ្រាបថា លោក
ហេង សេរីរតនា ជា **មេត្តជនបណ្ឌិត** ជំនាញ **រដ្ឋបាលអង្គរ** នៅសាកលវិទ្យាល័យកម្ពុជា
បាននិងកំពុងធ្វើការសិក្សាស្រាវជ្រាវទៅលើប្រធានបទ **"បរិយាកាសគ្រួសារទៅលើបុគ្គលិកលក្ខណៈនិង
លទ្ធផលគុសកានៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា"** ដែរយើងខ្ញុំជាសាស្ត្រាចារ្យដឹកនាំផ្ទាល់។

ក្នុងការសិក្សាស្រាវជ្រាវនេះនិស្សិតបានស្នើសុំប្រើប្រាស់កម្រងសំណួរដែលធ្លាប់បានប្រើប្រាស់
ដោយអ្នកស្រាវជ្រាវមុន ដែរស្ថិតនៅបរិបទខុសគ្នា ហើយធ្វើការបកប្រែជាភាសាជាតិខ្មែរ ក្នុងគោលបំណង
ប្រមូលយកទិន្នន័យជាមួយនិងសំណាកគំរូស្រាវជ្រាវនៅសាកលវិទ្យាល័យក្នុងប្រទេសកម្ពុជា។ ដោយ
ហេតុនេះ ដើម្បីធានាបាននៅសុពលភាពនៃឧបករណ៍ស្រាវជ្រាវ យើងខ្ញុំសូមគោរពជូនលោកបណ្ឌិតជា
អ្នកជំនាញស្រាវជ្រាវ វាយតម្លៃពិន្ទុនិងផ្តល់ជាសុពលភាពលើកម្រងសំណួរដែលបានភ្ជាប់ជូននេះ។

សូមលោកបណ្ឌិត មេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីយើងខ្ញុំ។

ថ្ងៃសុក្រ ១០រោច ខែជេស្ឋ ឆ្នាំខាល ចត្វាស័ក ពុទ្ធសករាជ ២៥៦៦
រាជធានីភ្នំពេញ ថ្ងៃទី២៤ ខែមិថុនា ឆ្នាំ២០២២

ហត្ថលេខា

សាស្ត្រាចារ្យដឹកនាំទី១

សាស្ត្រាចារ្យដឹកនាំទី២

បណ្ឌិត **ឈួន ម៉ីនហឿន**

បណ្ឌិត **ឡុប រតនា**

ជូនភ្ជាប់កម្រងសំណួរស្រាវជ្រាវ

លេខទំនាក់ទំនង៖ ០១២ ៩៦១ ៩៤៦/ ០៩៣ ៩៧០ ០៣២

THE ITEM OBJECTIVE CONGRUENCE FORM (IOC)

1. RESEARCH TITLE

“HOME ENVIRONMENT ON PERSONALITY AND ACADEMIC PERFORMANCE AMONG UNDERGRADUATES IN CAMBODIA”

2. BACKGROUND OF THE STUDY

The home environment is the key factor that shapes the children's personality, characteristics, and behavior. Kagan and Neuman (1998) proved children were influenced by parents' character through their daily activities. In Cambodia's present situation, children were raised at home by their parents or grandparents (UNICEF, 2018). Even Crow and Crow (1965) claimed that the home environment affected student's personality adjustment, and especially family socio-economic is extremely influence personal personality development. Academic performance is the first stage for career success and combination with the personality traits of the student will lead to success in life.

According to the researcher's perspective, knowledge, and experiences, this study was regarded as the initial investigate the home environment factor on student's personality and academic development in Cambodia. In addition, using all the results of the research study, all parents all over the country can establish and sustain the healthy parents-child relations in family to enhance undergraduates' personality in positive direction and accomplish higher level of academic performance henceforward.

3. RESEARCH QUESTIONS

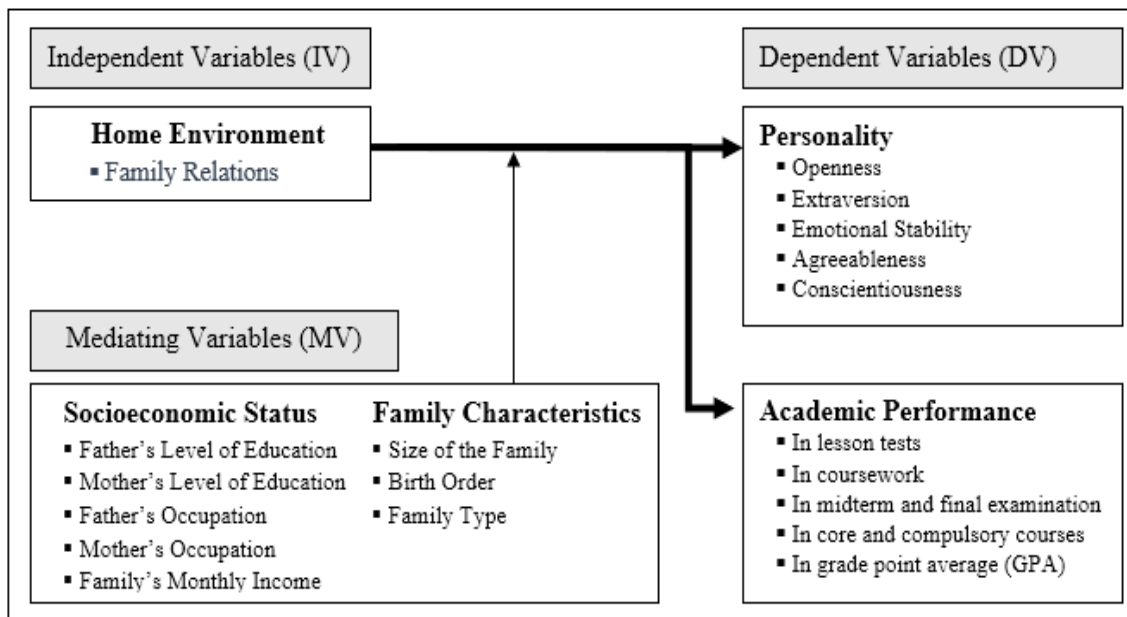
1. What is the level of Personality, Academic Performance, and Family Relations of undergraduates studying among the university in Cambodia?
2. Is there any relationship between the Home Environment dimension with students' Personality among the university in Cambodia?
3. Is there any relationship between the Home Environment dimension with students' Academic Performance among the university in Cambodia?

4. RESEARCH OBJECTIVES

1. To determine the level of Personality, Academic Performance, and Family Relations of undergraduates studying among the university in Cambodia.

2. To investigate the relationship between the Home Environment dimension with students' Personality among the university in Cambodia.
3. To examine the relationship between the Home Environment dimension with students' Academic Performance among the university in Cambodia.

2. CONCEPTUAL FRAMEWORK



3. OPERATIONAL DEFINITION

There are three essentials operational definitions in this research paper as following definition such as home environment, personality, and academic performance. Home environment refers to the combination of family relation, socio economic status consists of father's level of education, mother's level of education, father's occupation, mother's occupation, family's monthly income, and family characteristic include size of the family, birth order, and family type. In addition, the term personality refers the essence of the individual consists of openness, extraversion, emotional stability, agreeableness, and conscientiousness. Last but not least, the academic performance concentrates student's performance in lesson test, in coursework, in midterm and final examination, in core and compulsory course, and in grade point average (GPA).

THE ITEM OBJECTIVE CONGRUENCE FORM (IOC)

Content Validity for Questionnaire

The questionnaire of this research study was divided into four main parts, namely:

Part- A: Demographic Variable Information

Part- B: Family Relations

Part- C: Personality

Part- D: Academic Performance

There were only three main part such as part B, C, and D was sent to the experts to determine the level of validity score for both Khmer and English version from the expert as mention the score rang below.

Instruction:

Please kindly determine the content validity score as the following:

+1 = If you are sure that this item truly measures the attribute.

0 = If you are not sure that whether or not the item measures the attribute.

-1 = If you are sure that the item does not measure the attribute.

Part- B: Family Relations, adapted from Hudson (1982) with Cronbach's Alpha=0.82.

English Version

No.	Statement of Family Relation	Appropriateness			Comment
		+1	0	-1	
1.	The members of my family really care about each other				
2.	I think my family is terrific				
3.	My family gets on my nerves				
4.	I really enjoy my family				
5.	I really can depend on my family				
6.	I really do not care to be around my family				
7.	I wish I was not the part of this family				
8.	I get along well with my family				
9.	Member of my family argue too much				
10.	There is no sense of closeness in my family				
11.	My family doesn't understand me				
12.	I feel like a stranger in my family				

No.	Statement of Family Relation	Appropriateness			Comment
		+1	0	-1	
13.	There is too much hatred in my family				
14.	My family is well respected by others who know us				
15.	There seems a lot of friction in my family				
16.	There is a lot of love in my family				
17.	Members of my family get along well together				
18.	Life in my family is generally unpleasant				
19.	My family is a great joy to me				
20.	I feel proud of my family				
21.	Other families seem to get along better than ours				
22.	My family is a real source of comfort to me				
23.	I feel left out of my family				
24.	My family is an unhappy one				

Khmer Version

ល.រ	ទស្សនៈលើទំនាក់ទំនងគ្រួសារ	Appropriateness			Comment
		+1	0	-1	
១-	សមាជិកក្នុងគ្រួសារខ្ញុំពិតជាយកចិត្តទុកដាក់ចំពោះគ្នាទៅវិញទៅមក				
២-	ខ្ញុំគិតថាគ្រួសាររបស់ខ្ញុំអស្ចារ្យ				
៣-	គ្រួសាររបស់ខ្ញុំធ្វើអោយខ្ញុំម្តេច				
៤-	ខ្ញុំពិតជារីករាយជាមួយគ្រួសាររបស់ខ្ញុំ				
៥-	ខ្ញុំពិតជាអាចពឹងពាក់លើគ្រួសាររបស់ខ្ញុំ				
៦-	ខ្ញុំពិតជាមិនខ្វល់ នៅជុំវិញជាមួយគ្រួសាររបស់ខ្ញុំ				
៧-	ខ្ញុំសង្ឃឹមថា ខ្ញុំមិនមែនជាផ្នែកមួយនៃគ្រួសាររបស់ខ្ញុំ				
៨-	ខ្ញុំចុះសំរុងយ៉ាងខ្លាំងជាមួយគ្រួសាររបស់ខ្ញុំ				
៩-	សមាជិកគ្រួសាររបស់ខ្ញុំឈ្មោះគ្នាខ្លាំង				
១០-	គ្រួសាររបស់ខ្ញុំ មិនមានភាពស្មុគស្មាញគ្នាទេ				
១១-	គ្រួសាររបស់ខ្ញុំមិនយល់ពីខ្ញុំទេ				
១២-	ខ្ញុំមានអារម្មណ៍ថា ខ្ញុំជាមនុស្សចម្លែកក្នុងគ្រួសាររបស់ខ្ញុំ				
១៣-	មានការស្តាប់គ្នាយ៉ាងច្រើនក្នុងគ្រួសាររបស់ខ្ញុំ				
១៤-	គ្រួសាររបស់ខ្ញុំទទួលបានការគោរពយ៉ាងខ្លាំងពីអ្នកដែលស្គាល់យើង				
១៥-	វាហាក់ដូចជាមានការមិនចុះសំរុងគ្នាយ៉ាងខ្លាំងក្នុងគ្រួសាររបស់ខ្ញុំ				

ល.រ	ទស្សនៈលើទំនាក់ទំនងគ្រួសារ	Appropriateness			Comment
		+1	0	-1	
១៦-	មានសេចក្តីស្រឡាញ់យ៉ាងច្រើនក្នុងគ្រួសាររបស់ខ្ញុំ				
១៧-	សមាជិកក្នុងគ្រួសាររបស់ខ្ញុំមានភាពជិតស្និទ្ធជាមួយគ្នា				
១៨-	ជីវិតក្នុងគ្រួសាររបស់ខ្ញុំ ជាទូទៅមិនរីករាយទេ				
១៩-	គ្រួសាររបស់ខ្ញុំជា សេចក្តីត្រេកអររំលឹកសម្រាប់ខ្ញុំ				
២០-	ខ្ញុំមានអារម្មណ៍ មានមោទនៈភាពចំពោះគ្រួសាររបស់ខ្ញុំ				
២១-	គ្រួសារដទៃហាក់ដូចជាមានភាពស្និទ្ធស្នាលជាងគ្រួសាររបស់យើង				
២២-	គ្រួសាររបស់ខ្ញុំជាប្រភពដ៏ពិតប្រាកដសម្រាប់ភាពកក់ក្តៅរបស់ខ្ញុំ				
២៣-	ខ្ញុំមានអារម្មណ៍ថានៅឃ្លាតឆ្ងាយពីគ្រួសាររបស់ខ្ញុំ				
២៤-	គ្រួសាររបស់ខ្ញុំជាគ្រួសារមួយដ៏គ្មានសុភមង្គល				

Part- C: Personality, adapted from Goldberg (1999) with Cronbach's $\alpha=0.792$.

English Version

No.	Type of Personality	Statement of Personality	Appropriateness			Comment
			+1	0	-1	
1.	Openness	Tend to vote for conservative political candidates				
2.		Believe in the importance of art				
3.		Am not interested in abstract ideas				
4.		Tend to vote for liberal political candidate				
5.		Avoid philosophical discussions				
6.		Don't enjoy going to art museums				
7.		Don't like art				
8.	Extroversion	Am the life of the party				
9.		Am skilled in handling social situations				
10.		Don't like to draw attention to myself				
11.		Make friend easily				
12.		Know how to captivate people				
13.		Keep in the background				
14.		Don't talk a lot				

No.	Type of Personality	Statement of Personality	Appropriateness			Comment
			+1	0	-1	
15.		Shirk my duties				
16.		Don't see things through				
17.	Conscientiousness	Am always prepared				
18.		Make plans and stick to them				
19.		Carry out my plans				
20.		Do just enough work to get by				
21.		Find it difficult to get down to earth				
22.		Pay attention to details				
23.		Waste my time				
24.		Get chore done right away				
25.		Shirk my duties				
26.		Don't see things through				
27.	Emotion Stability	Have frequent mood swings				
28.		Am not easily bothered by things				
29.		Dislike myself				
30.		Seldom feel blue				
31.		Panic easily				
32.		Feel comfortable				
33.		Am often down in the dumps				
34.		Often feel blue				
35.	Agreeableness	Respect others				
36.		Insult People				
37.		Believe that others have good intentions				
38.		Accept people as they are				
39.		Get back at others				
40.		Cut others to pieces				
41.		Have a good word for everyone				

Khmer Version

ល.រ	ប្រភេទបុគ្គលិកលក្ខណៈ	ប្រយោគបុគ្គលិកលក្ខណៈ	Appropriateness			Comment
			+1	0	-1	
១-	បើកទូលាយ	មានទំនោរបោះឆ្នោតសម្រាប់បេក្ខជននយោបាយអភិរក្សនិយម				
២-		ជឿជាក់ទៅលើសារៈសំខាន់នៃសិល្បៈ				
៣-		មិនចាប់អារម្មណ៍លើគំនិតដែរពិបាកយល់				
៤-		មានទំនោរបោះឆ្នោតសម្រាប់បេក្ខជននយោបាយសេរីនិយម				
៥-		ចៀសវាងការពិភាក្សាលើទស្សនៈវិជ្ជា				
៦-		មិនរីករាយនិងទៅទស្សនាសារមន្ទីរសិល្បៈ				
៧-		មិនចូលចិត្តសិល្បៈ				
៨-	រួសរាយមានទំនុកចិត្ត	ជីវិតរបស់ខ្ញុំគឺជាការជួបជុំកំសាន្ត				
៩-		ខ្ញុំមានជំនាញដោះស្រាយនៅស្ថានភាពសង្គម				
១០-		មិនចូលចិត្តការទាក់ទាញចំណាប់អារម្មណ៍ខ្លួនឯង				
១១-		ងាយស្រួលក្នុងការរាប់អានមិត្តភក្តិ				
១២-		ដឹងពីវិធីទាក់ទាញមនុស្ស				
១៣-		លាក់នៅរាល់ប្រវត្តិរបស់ខ្លួន				
១៤-		មិននិយាយច្រើន				
១៥-		គេចវេសពីកាតូកិច្ចរបស់ខ្លួន				
១៦-		មើលមិនបានវែងឆ្ងាយ				
១៧-	មនសិការ	ខ្ញុំតែងតែរៀបចំជានិច្ច				
១៨-		រៀបចំផែនការហើយផ្ដោតលើវា				
១៩-		អនុវត្តផែនការរបស់ខ្ញុំ				
២០-		បំពេញការងារអោយរួចតែកំរិតមធ្យម				
២១-		ជួបបញ្ហាលំបាកដោយស្វែងរកដំណោះស្រាយ				
២២-		ផ្ដោតការយកចិត្តទុកដាក់លើព័ត៌មានលំអិត				
២៣-		ខ្វះខាតពេលវេលា				
២៤-		បំពេញកិច្ចការងារផ្ទះក្លាមៗ				
២៥-		គេចវេសពីកាតូកិច្ចរបស់ខ្លួន				
២៦-		មើលមិនបានវែងឆ្ងាយ				
២៧-	ស្ថេរភាពអារម្មណ៍	មានអារម្មណ៍ប្រែប្រួលមិនទៀងទាត់				
២៨-		រឿងផ្សេងៗមិនងាយនិងរំខានខ្ញុំ				

ល.រ	ប្រភេទបុគ្គលិកលក្ខណៈ	ប្រយោគបុគ្គលិកលក្ខណៈ	Appropriateness			Comment
			+1	0	-1	
២៩-		មិនចូលចិត្តខ្លួនឯង				
៣០-		កំរមានអារម្មណ៍ស្រពាប់ស្រពោន				
៣១-		ងាយនិងភ័យស្លន់ស្លា				
៣២-		មានអារម្មណ៍កក់ក្តៅ				
៣៣-		មានអារម្មណ៍កើតទុក្ខខ្លាំង				
៣៤-		ញឹកញាប់មានអារម្មណ៍ស្រពាប់ស្រពោន				
៣៥-	ផ្តល់ភាពរីករាយ	គោរពអ្នកដទៃ				
៣៦-		ប្រមាថអ្នកដទៃ				
៣៧-		ជឿជាក់លើអ្នកដទៃថាមានបំណងល្អ				
៣៨-		ទទួលយកមនុស្សដូចអ្វីដែលពួកគេមាន				
៣៩-		សងសឹកលើអ្នកដទៃ				
៤០-		យកឈ្នះទាំងស្រុងលើនរណាម្នាក់				
៤១-		មានពាក្យពេជន៍ពិរោះសម្រាប់មនុស្សរាល់គ្នា				

Part- D: Academic Performance, adapted from Kyoshiba (2009) with Cronbach's alpha=0.778.

English Version

No.	Academic Performance	Appropriateness			Comment
		+1	0	-1	
1.	In mid-term tests				
2.	In take-home course works				
3.	In your previous semesters				
4.	In core/compulsory course				
5.	In optional course				

Khmer Version

ល.រ	លទ្ធផលគុសកា	Appropriateness			Comment
		+1	0	-1	
១-	នៅក្នុងតេស្តមេរៀន				
២-	នៅក្នុងមុខវិជ្ជាសិក្សា				

ល.រ	លទ្ធផលគុសភា	Appropriateness			Comment
		+1	0	-1	
៣-	នៅក្នុងប្រលងពាក់កណ្តាលឆមាស និង ប្រចាំឆមាស				
៤-	នៅក្នុងមុខវិជ្ជាគោល				
៥-	ក្នុងពិន្ទុជាមធ្យម				

Appendix C: Proofreading Letter

PROOFREADING LETTER

This is to certify that the dissertation entitled “**HOME ENVIRONMENT ON PERSONALITY AND ACADEMIC PERFORMANCE AMONG UNDERGRADUATES IN CAMBODIA**”, to be submitted by HENG SEREY RATHANA has been proofread and edited for proper English Language.

Alan Klein, Ed.D.

University of British Columbia

Appendix D: SPSS 23 Pilot Test and Results

```
GET DATA /TYPE=XLSX
  /FILE='C:\Users\ASUS ROG\Desktop\Instrument_Heng Serey Rathana_Pilot Study_B
_C_D.xlsx'
  /SHEET=name 'Instrument B C D '
  /CELLRANGE=full
  /READNAMES=on
  /ASSUMEDSTRWIDTH=32767.
EXECUTE.
DATASET NAME DataSet1 WINDOW=FRONT.

SAVE OUTFILE='C:\Users\ASUS ROG\Desktop\Instrument_Heng Serey Rathana_Pilot St
udy.sav'
  /COMPRESSED.
RELIABILITY
  /VARIABLES=INB_01 INB_02 INB_03 INB_04 INB_05 INB_06 INB_07 INB_08 INB_09 IN
B_10 INB_11 INB_12
    INB_13 INB_14 INB_15 INB_16 INB_17 INB_18 INB_19 INB_20 INB_21 INB_22 INB_
23 INB_24
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL MEANS VARIANCE.
```

Reliability

[DataSet1] C:\Users\ASUS ROG\Desktop\Instrument_Heng Serey Rathana_Pilot Study
.sav

Warnings

The determinant of the covariance matrix is zero or approximately zero. Statistics based on its inverse matrix cannot be computed and they are displayed as system missing values.

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	96.8
	Excluded ^a	1	3.2
	Total	31	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.811	.791	24

Item Statistics

	Mean	Std. Deviation	N
INB_01	4.533	.7303	30
INB_02	3.067	.9444	30
INB_03	3.200	.9613	30
INB_04	4.367	.6687	30
INB_05	3.667	.8841	30
INB_06	2.767	.6789	30
INB_07	2.600	.4983	30
INB_08	4.433	.6261	30
INB_09	2.467	.6288	30
INB_10	2.633	.5561	30
INB_11	2.733	.7397	30
INB_12	2.367	.8503	30
INB_13	2.700	.7944	30
INB_14	4.200	.8867	30
INB_15	2.500	.5724	30
INB_16	4.267	.7397	30
INB_17	4.067	.8683	30
INB_18	2.800	.7611	30
INB_19	4.267	.7849	30
INB_20	4.433	.7739	30
INB_21	2.800	.7611	30
INB_22	4.500	.9002	30
INB_23	2.700	.7022	30
INB_24	2.700	.7022	30

Intercorrelation Matrix																									
	INB_01	INB_02	INB_03	INB_04	INB_05	INB_06	INB_07	INB_08	INB_09	INB_10	INB_11	INB_12	INB_13	INB_14	INB_15	INB_16	INB_17	INB_18	INB_19	INB_20	INB_21	INB_22	INB_23	INB_24	
INB_01	1.000	.267	.481	.276	.237	.259	.258	.267	.270	.271	.271	.267	.266	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_02	.267	1.000	.481	.267	.237	.259	.258	.267	.270	.271	.271	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_03	.481	.481	1.000	.416	.267	.237	.259	.258	.267	.270	.271	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_04	.276	.267	.416	1.000	.186	.271	.259	.266	.267	.270	.271	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_05	.237	.237	.267	.186	1.000	.266	.258	.266	.267	.270	.271	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_06	.259	.259	.259	.271	.266	1.000	.266	.266	.267	.270	.271	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_07	.258	.258	.258	.259	.258	.266	1.000	.266	.266	.267	.270	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_08	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.267	.270	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_09	.270	.270	.270	.270	.270	.270	.270	.267	1.000	.266	.270	.267	.266	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_10	.271	.271	.271	.271	.271	.271	.271	.270	.267	1.000	.266	.270	.267	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_11	.271	.271	.271	.271	.271	.271	.271	.270	.267	.267	1.000	.266	.270	.267	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_12	.267	.267	.267	.267	.267	.267	.267	.266	.267	.267	.266	1.000	.266	.270	.267	.266	.267	.267	.267	.267	.267	.267	.267	.267	.267
INB_13	.266	.266	.266	.266	.266	.266	.266	.266	.267	.267	.266	.266	1.000	.266	.270	.267	.266	.267	.267	.267	.267	.267	.267	.267	.267
INB_14	.266	.266	.266	.266	.266	.266	.266	.266	.267	.267	.266	.266	.266	1.000	.266	.270	.267	.266	.267	.267	.267	.267	.267	.267	.267
INB_15	.266	.266	.266	.266	.266	.266	.266	.266	.267	.267	.266	.266	.266	.266	1.000	.266	.270	.267	.266	.267	.267	.267	.267	.267	.267
INB_16	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270	.267	.266	.267	.267	.267	.267	.267
INB_17	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270	.267	.266	.267	.267	.267	.267
INB_18	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270	.267	.266	.267	.267	.267
INB_19	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270	.267	.266	.267	.267
INB_20	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270	.267	.266	.267
INB_21	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270	.267	.266
INB_22	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270	.267
INB_23	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.266	.270
INB_24	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	.267	1.000	.267

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.365	2.367	4.533	2.167	1.915	.668	24
Item Variances	.578	.248	.924	.676	3.722	.034	24

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INB_01	76.233	54.875	.633	.	.791
INB_02	77.700	56.493	.343	.	.805
INB_03	77.567	55.840	.382	.	.803
INB_04	76.400	54.662	.723	.	.789
INB_05	77.100	58.369	.230	.	.811
INB_06	78.000	58.414	.326	.	.805
INB_07	78.167	64.489	-.310	.	.825
INB_08	76.333	56.230	.600	.	.795
INB_09	78.300	63.528	-.167	.	.824
INB_10	78.133	60.947	.115	.	.813
INB_11	78.033	65.137	-.287	.	.832
INB_12	78.400	55.834	.448	.	.799
INB_13	78.067	57.237	.365	.	.804
INB_14	76.567	54.185	.558	.	.793
INB_15	78.267	61.099	.092	.	.814
INB_16	76.500	52.672	.841	.	.781
INB_17	76.700	51.803	.776	.	.781
INB_18	77.967	58.999	.229	.	.810
INB_19	76.500	52.603	.793	.	.782

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INB_20	76.333	53.402	.730	.	.786
INB_21	77.967	64.102	-.199	.	.829
INB_22	76.267	53.168	.630	.	.789
INB_23	78.067	56.754	.473	.	.799
INB_24	78.067	62.616	-.077	.	.822

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
80.767	62.254	7.8901	24

RELIABILITY

```

/VARIABLES=INC_01 INC_02 INC_03 INC_04 INC_05 INC_06 INC_07 INC_08 INC_09 INC_10 INC_11 INC_12
INC_13 INC_14 INC_15 INC_16 INC_17 INC_18 INC_19 INC_20 INC_21 INC_22 INC_23 INC_24 INC_25 INC_26
INC_27 INC_28 INC_29 INC_30 INC_31 INC_32 INC_33 INC_34 INC_35 INC_36 INC_37 INC_38 INC_39 INC_40
INC_41
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR
/SUMMARY=TOTAL MEANS VARIANCE.

```

Reliability

Warnings

The determinant of the covariance matrix is zero or approximately zero. Statistics based on its inverse matrix cannot be computed and they are displayed as system missing values.

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	96.8
	Excluded ^a	1	3.2
	Total	31	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.793	.808	41

Item Statistics

	Mean	Std. Deviation	N
INC_01	3.367	.9994	30
INC_02	3.800	.9613	30
INC_03	3.067	.9072	30
INC_04	3.433	.8584	30
INC_05	2.900	.7589	30
INC_06	2.433	1.0063	30
INC_07	2.467	1.1666	30
INC_08	3.100	.8847	30
INC_09	3.433	.6789	30
INC_10	3.400	.8550	30
INC_11	3.867	.9371	30
INC_12	3.433	.8976	30
INC_13	3.700	.7022	30
INC_14	3.367	.9994	30
INC_15	3.033	.9994	30
INC_16	3.067	.9072	30
INC_17	3.900	.7120	30
INC_18	3.800	.6644	30
INC_19	3.833	.6989	30
INC_20	3.733	.6397	30
INC_21	3.167	.8339	30
INC_22	4.033	.7184	30

Item Statistics

	Mean	Std. Deviation	N
INC_23	2.633	1.0334	30
INC_24	3.367	.9994	30
INC_25	2.800	1.0306	30
INC_26	2.933	.7849	30
INC_27	3.367	.8899	30
INC_28	3.000	.9097	30
INC_29	2.500	.9002	30
INC_30	2.933	.7849	30
INC_31	3.067	1.1427	30
INC_32	3.800	.7611	30
INC_33	2.833	.6477	30
INC_34	3.000	.7878	30
INC_35	4.400	.7240	30
INC_36	2.333	1.0613	30
INC_37	3.400	.8137	30
INC_38	4.000	.7428	30
INC_39	3.167	.8339	30
INC_40	2.733	.9072	30
INC_41	4.167	.6477	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
INC_21	131.600	127.076	.470	.	.781
INC_22	130.733	129.651	.393	.	.785
INC_23	132.133	127.982	.323	.	.786
INC_24	131.400	126.938	.385	.	.783
INC_25	131.967	123.757	.514	.	.778
INC_26	131.833	128.833	.401	.	.784
INC_27	131.400	135.628	.009	.	.797
INC_28	131.767	128.944	.330	.	.786
INC_29	132.267	134.133	.079	.	.795
INC_30	131.833	134.144	.101	.	.793
INC_31	131.700	128.424	.265	.	.789
INC_32	130.967	127.206	.513	.	.781
INC_33	131.933	130.547	.381	.	.786
INC_34	131.767	128.737	.405	.	.784
INC_35	130.367	133.068	.180	.	.791
INC_36	132.433	136.737	-.051	.	.802
INC_37	131.367	127.206	.476	.	.781
INC_38	130.767	130.461	.329	.	.786
INC_39	131.600	132.869	.158	.	.792
INC_40	132.033	129.206	.319	.	.786
INC_41	130.600	130.386	.392	.	.785

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
134.767	136.599	11.6876	41

RELIABILITY

```

/VARIABLES=IND_01 IND_02 IND_03 IND_04 IND_05
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR
/SUMMARY=TOTAL MEANS VARIANCE.

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Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	96.8
	Excluded ^a	1	3.2
	Total	31	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.854	.853	5

Item Statistics

	Mean	Std. Deviation	N
IND_01	2.533	.5074	30
IND_02	2.467	.5074	30
IND_03	2.433	.5040	30
IND_04	2.333	.4795	30
IND_05	2.433	.5040	30

Inter-Item Correlation Matrix

	IND_01	IND_02	IND_03	IND_04	IND_05
IND_01	1.000	.741	.548	.520	.548
IND_02	.741	1.000	.530	.614	.530
IND_03	.548	.530	1.000	.238	.864
IND_04	.520	.614	.238	1.000	.238
IND_05	.548	.530	.864	.238	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.440	2.333	2.533	.200	1.086	.005	5
Item Variances	.251	.230	.257	.028	1.120	.000	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IND_01	9.667	2.506	.744	.598	.804
IND_02	9.733	2.478	.766	.652	.798
IND_03	9.767	2.599	.680	.757	.821
IND_04	9.867	2.947	.475	.407	.871
IND_05	9.767	2.599	.680	.757	.821

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
12.200	3.959	1.9896	5

```

FREQUENCIES VARIABLES=IC_01 IC_02 IC_03_Rcode IC_04 IC_05_Rcode IC_06_Rcode
  IC_07_Rcode IC_08
  IC_09 IC_10_Rcode IC_11 IC_12 IC_13 IC_14_Rcode IC_15 IC_16_Rcode IC_17
  IC_18 IC_19 IC_20 IC_21
  IC_22 IC_23 IC_24 IC_25 IC_26_Rcode IC_27 IC_28_Rcode IC_29_Rcode IC_30
  _Rcode IC_31 IC_32 IC_33
  IC_34_Rcode IC_35 IC_36 IC_37 IC_38 IC_39 IC_40 IC_41
  /STATISTICS=STDDEV MEAN
  /ORDER=ANALYSIS.

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Frequencies

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
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	Elapsed Time	00:00:00.01

[illegible]

Tend to vote for conservative political candidates.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	6	6.0	6.0	6.0
	Moderately accurate	8	8.0	8.0	14.0
	Neither accurate nor inaccurate	64	64.0	64.0	78.0
	Moderately accurate	15	15.0	15.0	93.0
	Very accurate	7	7.0	7.0	100.0
	Total	100	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	2	2.0	2.0	2.0
	Neither accurate nor inaccurate	23	23.0	23.0	25.0
	Moderately accurate	47	47.0	47.0	72.0
	Very accurate	28	28.0	28.0	100.0
	Total	100	100.0	100.0	

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	9	9.0	9.0	9.0
2.00	23	23.0	23.0	32.0
3.00	38	38.0	38.0	70.0
4.00	23	23.0	23.0	93.0
5.00	7	7.0	7.0	100.0
Total	100	100.0	100.0	

Tend to vote for liberal political candidate.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	1	1.0	1.0	1.0
	Neither accurate nor inaccurate	45	45.0	45.0	46.0
	Moderately accurate	29	29.0	29.0	75.0
	Very accurate	25	25.0	25.0	100.0
	Total	100	100.0	100.0	

IC_05_Retcode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	5.0	5.0	5.0
	2.00	16	16.0	16.0	21.0
	3.00	41	41.0	41.0	62.0
	4.00	23	23.0	23.0	85.0
	5.00	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

IC_06_Retcode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	4	4.0	4.0	4.0
	2.00	4	4.0	4.0	8.0
	3.00	29	29.0	29.0	37.0
	4.00	23	23.0	23.0	60.0
	5.00	40	40.0	40.0	100.0
	Total	100	100.0	100.0	

IC_07_Retcode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.00	4	4.0	4.0	5.0
	3.00	26	26.0	26.0	31.0
	4.00	17	17.0	17.0	48.0
	5.00	52	52.0	52.0	100.0
	Total	100	100.0	100.0	

Am the life of the party.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	8	8.0	8.0	8.0
	Moderately accurate	17	17.0	17.0	25.0
	Neither accurate nor inaccurate	43	43.0	43.0	68.0
	Moderately accurate	28	28.0	28.0	96.0
	Very accurate	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

Am skilled in handing social situations.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	3	3.0	3.0	3.0
	Moderately accurate	15	15.0	15.0	18.0
	Neither accurate nor inaccurate	38	38.0	38.0	56.0
	Moderately accurate	36	36.0	36.0	92.0
	Very accurate	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

IC_10_Retcode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	10	10.0	10.0	10.0
	2.00	24	24.0	24.0	34.0
	3.00	46	46.0	46.0	80.0
	4.00	17	17.0	17.0	97.0
	5.00	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

Make friend easily.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	3	3.0	3.0	3.0
	Moderately accurate	9	9.0	9.0	12.0
	Neither accurate nor inaccurate	24	24.0	24.0	36.0
	Moderately accurate	32	32.0	32.0	68.0
	Very accurate	32	32.0	32.0	100.0
	Total	100	100.0	100.0	

Know how to captivate people.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	5	5.0	5.0	5.0
	Moderately accurate	15	15.0	15.0	20.0
	Neither accurate nor inaccurate	32	32.0	32.0	52.0
	Moderately accurate	39	39.0	39.0	91.0
	Very accurate	9	9.0	9.0	100.0
	Total	100	100.0	100.0	

Keep in the background.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	7	7.0	7.0	7.0
	Moderately accurate	16	16.0	16.0	23.0
	Neither accurate nor inaccurate	39	39.0	39.0	62.0
	Moderately accurate	30	30.0	30.0	92.0
	Very accurate	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

IC_14_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	18	18.0	18.0	18.0
	2.00	37	37.0	37.0	55.0
	3.00	28	28.0	28.0	83.0
	4.00	10	10.0	10.0	93.0
	5.00	7	7.0	7.0	100.0
	Total	100	100.0	100.0	

Shirk my duties.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	44	44.0	44.0	44.0
	Moderately accurate	35	35.0	35.0	79.0
	Neither accurate nor inaccurate	13	13.0	13.0	92.0
	Moderately accurate	6	6.0	6.0	98.0
	Very accurate	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

IC_16_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	4	4.0	4.0	4.0
	2.00	16	16.0	16.0	20.0
	3.00	30	30.0	30.0	50.0
	4.00	29	29.0	29.0	79.0
	5.00	21	21.0	21.0	100.0
	Total	100	100.0	100.0	

Am always prepared.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	5	5.0	5.0	5.0
	Neither accurate nor inaccurate	26	26.0	26.0	31.0
	Moderately accurate	48	48.0	48.0	79.0
	Very accurate	21	21.0	21.0	100.0
	Total	100	100.0	100.0	

Make plans and stick to them.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	8	8.0	8.0	8.0
	Neither accurate nor inaccurate	20	20.0	20.0	28.0
	Moderately accurate	45	45.0	45.0	73.0
	Very accurate	27	27.0	27.0	100.0
	Total	100	100.0	100.0	

Carry out my plans.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	6	6.0	6.0	6.0
	Neither accurate nor inaccurate	19	19.0	19.0	25.0
	Moderately accurate	43	43.0	43.0	68.0
	Very accurate	32	32.0	32.0	100.0
	Total	100	100.0	100.0	

Do just enough work to get by.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	7	7.0	7.0	7.0
	Moderately accurate	30	30.0	30.0	37.0
	Neither accurate nor inaccurate	28	28.0	28.0	65.0
	Moderately accurate	30	30.0	30.0	95.0
	Very accurate	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Find it difficult to get down to earth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	3	3.0	3.0	3.0
	Neither accurate nor inaccurate	28	28.0	28.0	31.0
	Moderately accurate	41	41.0	41.0	72.0
	Very accurate	28	28.0	28.0	100.0
	Total	100	100.0	100.0	

Pay attention to details.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	2	2.0	2.0	2.0
	Neither accurate nor inaccurate	18	18.0	18.0	20.0
	Moderately accurate	38	38.0	38.0	58.0
	Very accurate	42	42.0	42.0	100.0
	Total	100	100.0	100.0	

Waste my time.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	18	18.0	18.0	18.0
	Moderately accurate	35	35.0	35.0	53.0
	Neither accurate nor inaccurate	25	25.0	25.0	78.0
	Moderately accurate	17	17.0	17.0	95.0
	Very accurate	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Get chore done right away.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	1	1.0	1.0	1.0
	Moderately accurate	8	8.0	8.0	9.0
	Neither accurate nor inaccurate	34	34.0	34.0	43.0
	Moderately accurate	40	40.0	40.0	83.0
	Very accurate	17	17.0	17.0	100.0
	Total	100	100.0	100.0	

Shirk my duties.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	41	41.0	41.0	41.0
	Moderately accurate	31	31.0	31.0	72.0
	Neither accurate nor inaccurate	17	17.0	17.0	89.0
	Moderately accurate	9	9.0	9.0	98.0
	Very accurate	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

Pay attention to details.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	2	2.0	2.0	2.0
	Neither accurate nor inaccurate	18	18.0	18.0	20.0
	Moderately accurate	38	38.0	38.0	58.0
	Very accurate	42	42.0	42.0	100.0
	Total	100	100.0	100.0	

Waste my time.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	18	18.0	18.0	18.0
	Moderately accurate	35	35.0	35.0	53.0
	Neither accurate nor inaccurate	25	25.0	25.0	78.0
	Moderately accurate	17	17.0	17.0	95.0
	Very accurate	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Get chore done right away.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	1	1.0	1.0	1.0
	Moderately accurate	8	8.0	8.0	9.0
	Neither accurate nor inaccurate	34	34.0	34.0	43.0
	Moderately accurate	40	40.0	40.0	83.0
	Very accurate	17	17.0	17.0	100.0
	Total	100	100.0	100.0	

Shirk my duties.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	41	41.0	41.0	41.0
	Moderately accurate	31	31.0	31.0	72.0
	Neither accurate nor inaccurate	17	17.0	17.0	89.0
	Moderately accurate	9	9.0	9.0	98.0
	Very accurate	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

IC_26_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.00	15	15.0	15.0	16.0
	3.00	24	24.0	24.0	40.0
	4.00	37	37.0	37.0	77.0
	5.00	23	23.0	23.0	100.0
	Total	100	100.0	100.0	

Have frequent mood swings.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	2	2.0	2.0	2.0
	Moderately accurate	10	10.0	10.0	12.0
	Neither accurate nor inaccurate	38	38.0	38.0	50.0
	Moderately accurate	37	37.0	37.0	87.0
	Very accurate	13	13.0	13.0	100.0
	Total	100	100.0	100.0	

IC_28_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	11	11.0	11.0	11.0
	2.00	33	33.0	33.0	44.0
	3.00	41	41.0	41.0	85.0
	4.00	11	11.0	11.0	96.0
	5.00	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

IC_29_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	5.0	5.0	5.0
	2.00	13	13.0	13.0	18.0
	3.00	23	23.0	23.0	41.0
	4.00	19	19.0	19.0	60.0
	5.00	40	40.0	40.0	100.0
	Total	100	100.0	100.0	

IC_30_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	6.0	6.0	6.0
	2.00	21	21.0	21.0	27.0
	3.00	45	45.0	45.0	72.0
	4.00	21	21.0	21.0	93.0
	5.00	7	7.0	7.0	100.0
	Total	100	100.0	100.0	

Panic easily.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	13	13.0	13.0	13.0
	Moderately accurate	14	14.0	14.0	27.0
	Neither accurate nor inaccurate	33	33.0	33.0	60.0
	Moderately accurate	31	31.0	31.0	91.0
	Very accurate	9	9.0	9.0	100.0
	Total	100	100.0	100.0	

Feel comfortable.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	2	2.0	2.0	2.0
	Moderately accurate	8	8.0	8.0	10.0
	Neither accurate nor inaccurate	43	43.0	43.0	53.0
	Moderately accurate	35	35.0	35.0	88.0
	Very accurate	12	12.0	12.0	100.0
	Total	100	100.0	100.0	

Have a good word for everyone.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	1	1.0	1.0	1.0
	Moderately accurate	1	1.0	1.0	2.0
	Neither accurate nor inaccurate	26	26.0	26.0	28.0
	Moderately accurate	38	38.0	38.0	66.0
	Very accurate	34	34.0	34.0	100.0
	Total	100	100.0	100.0	

Am often down in the dumps.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	15	15.0	15.0	15.0
	Moderately accurate	30	30.0	30.0	45.0
	Neither accurate nor inaccurate	37	37.0	37.0	82.0
	Moderately accurate	13	13.0	13.0	95.0
	Very accurate	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

IC_34_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	8	8.0	8.0	8.0
	2.00	17	17.0	17.0	25.0
	3.00	33	33.0	33.0	58.0
	4.00	27	27.0	27.0	85.0
	5.00	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

Respect others.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither accurate nor inaccurate	10	10.0	10.0	10.0
	Moderately accurate	26	26.0	26.0	36.0
	Very accurate	64	64.0	64.0	100.0
	Total	100	100.0	100.0	

Insult People.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	82	82.0	82.0	82.0
	Moderately accurate	8	8.0	8.0	90.0
	Neither accurate nor inaccurate	8	8.0	8.0	98.0
	Moderately accurate	1	1.0	1.0	99.0
	Very accurate	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

Believe that others have good intentions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	1	1.0	1.0	1.0
	Moderately accurate	12	12.0	12.0	13.0
	Neither accurate nor inaccurate	40	40.0	40.0	53.0
	Moderately accurate	36	36.0	36.0	89.0
	Very accurate	11	11.0	11.0	100.0
	Total	100	100.0	100.0	

Accept people as they are.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately accurate	2	2.0	2.0	2.0
	Neither accurate nor inaccurate	21	21.0	21.0	23.0
	Moderately accurate	40	40.0	40.0	63.0
	Very accurate	37	37.0	37.0	100.0
	Total	100	100.0	100.0	

Get back at others.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	44	44.0	44.0	44.0
	Moderately accurate	28	28.0	28.0	72.0
	Neither accurate nor inaccurate	19	19.0	19.0	91.0
	Moderately accurate	8	8.0	8.0	99.0
	Very accurate	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

Cut others to pieces.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very inaccurate	33	33.0	33.0	33.0
	Moderately accurate	23	23.0	23.0	56.0
	Neither accurate nor inaccurate	32	32.0	32.0	88.0
	Moderately accurate	10	10.0	10.0	98.0
	Very accurate	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

```

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      IB_09_Recode IB_10_Recode IB_11_Recode IB_12_Recode IB_13_Recode IB_14 IB_
15_Recode IB_16 IB_17
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Frequencies

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[illegible]

Frequency Table

The members of my family really care about each other.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A little of the time	9	9.0	9.0	9.0
	Same of the time	23	23.0	23.0	32.0
	A good part of the time	28	28.0	28.0	60.0
	All of the time	40	40.0	40.0	100.0
	Total	100	100.0	100.0	

I think my family is terrific.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A little of the time	8	8.0	8.0	8.0
	Same of the time	20	20.0	20.0	28.0
	A good part of the time	35	35.0	35.0	63.0
	All of the time	37	37.0	37.0	100.0
	Total	100	100.0	100.0	

IB 03 Recode

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	2	2.0	2.0	2.0
2.00	3	3.0	3.0	5.0
3.00	18	18.0	18.0	23.0
4.00	59	59.0	59.0	82.0
5.00	18	18.0	18.0	100.0
Total	100	100.0	100.0	

I really enjoy my family.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A little of the time	3	3.0	3.0	3.0
	Same of the time	7	7.0	7.0	10.0
	A good part of the time	41	41.0	41.0	51.0
	All of the time	49	49.0	49.0	100.0
	Total	100	100.0	100.0	

I really can depend on my family.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	2	2.0	2.0	2.0
	A little of the time	6	6.0	6.0	8.0
	Same of the time	25	25.0	25.0	33.0
	A good part of the time	24	24.0	24.0	57.0
	All of the time	43	43.0	43.0	100.0
	Total	100	100.0	100.0	

IB_06_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	9	9.0	9.0	9.0
	2.00	7	7.0	7.0	16.0
	3.00	19	19.0	19.0	35.0
	4.00	27	27.0	27.0	62.0
	5.00	38	38.0	38.0	100.0
	Total	100	100.0	100.0	

IB_07_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	2.0	2.0	2.0
	2.00	4	4.0	4.0	6.0
	3.00	5	5.0	5.0	11.0
	4.00	14	14.0	14.0	25.0
	5.00	75	75.0	75.0	100.0
	Total	100	100.0	100.0	

I get along well with my family.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A little of the time	3	3.0	3.0	3.0
	Same of the time	6	6.0	6.0	9.0
	A good part of the time	46	46.0	46.0	55.0
	All of the time	45	45.0	45.0	100.0
	Total	100	100.0	100.0	

IB_09_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	1.0	1.0	1.0
	2.00	1	1.0	1.0	2.0
	3.00	14	14.0	14.0	16.0
	4.00	45	45.0	45.0	61.0
	5.00	39	39.0	39.0	100.0
	Total	100	100.0	100.0	

IB_10_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	2.0	2.0	2.0
	2.00	8	8.0	8.0	10.0
	3.00	21	21.0	21.0	31.0
	4.00	31	31.0	31.0	62.0
	5.00	38	38.0	38.0	100.0
	Total	100	100.0	100.0	

IB_11_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	2.0	2.0	2.0
	2.00	8	8.0	8.0	10.0
	3.00	32	32.0	32.0	42.0
	4.00	32	32.0	32.0	74.0
	5.00	26	26.0	26.0	100.0
	Total	100	100.0	100.0	

IB_12_Retcode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	6.0	6.0	6.0
	2.00	3	3.0	3.0	9.0
	3.00	10	10.0	10.0	19.0
	4.00	30	30.0	30.0	49.0
	5.00	51	51.0	51.0	100.0
	Total	100	100.0	100.0	

IB_13_Retcode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	2	2.0	2.0	2.0
	4.00	23	23.0	23.0	25.0
	5.00	75	75.0	75.0	100.0
	Total	100	100.0	100.0	

My family is well respected by others who know us.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	4	4.0	4.0	4.0
	A little of the time	5	5.0	5.0	9.0
	Same of the time	14	14.0	14.0	23.0
	A good part of the time	51	51.0	51.0	74.0
	All of the time	26	26.0	26.0	100.0
	Total	100	100.0	100.0	

IB_15_Retcode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	4.0	4.0	4.0
	3.00	10	10.0	10.0	14.0
	4.00	42	42.0	42.0	56.0
	5.00	44	44.0	44.0	100.0
	Total	100	100.0	100.0	

There is a lot of love in my family.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	1	1.0	1.0	1.0
	A little of the time	6	6.0	6.0	7.0
	Same of the time	10	10.0	10.0	17.0
	A good part of the time	39	39.0	39.0	56.0
	All of the time	44	44.0	44.0	100.0
	Total	100	100.0	100.0	

Members of my family get along well together.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	2	2.0	2.0	2.0
	A little of the time	4	4.0	4.0	6.0
	Same of the time	14	14.0	14.0	20.0
	A good part of the time	44	44.0	44.0	64.0
	All of the time	36	36.0	36.0	100.0
	Total	100	100.0	100.0	

Life in my family is generally unpleasant.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	30	30.0	30.0	30.0
	A little of the time	51	51.0	51.0	81.0
	Same of the time	15	15.0	15.0	96.0
	A good part of the time	3	3.0	3.0	99.0
	All of the time	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

My family is a great joy to me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A little of the time	2	2.0	2.0	2.0
	Same of the time	10	10.0	10.0	12.0
	A good part of the time	36	36.0	36.0	48.0
	All of the time	52	52.0	52.0	100.0
	Total	100	100.0	100.0	

I feel proud of my family.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	2	2.0	2.0	2.0
	A little of the time	2	2.0	2.0	4.0
	Same of the time	9	9.0	9.0	13.0
	A good part of the time	22	22.0	22.0	35.0
	All of the time	65	65.0	65.0	100.0
	Total	100	100.0	100.0	

Other families seem to get along better than ours.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	17	17.0	17.0	17.0
	A little of the time	27	27.0	27.0	44.0
	Same of the time	32	32.0	32.0	76.0
	A good part of the time	20	20.0	20.0	96.0
	All of the time	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

My family is a real source of comfort to me.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the time	1	1.0	1.0	1.0
	A little of the time	2	2.0	2.0	3.0
	Same of the time	14	14.0	14.0	17.0
	A good part of the time	25	25.0	25.0	42.0
	All of the time	58	58.0	58.0	100.0
	Total	100	100.0	100.0	

IB_23_Recode

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	8	8.0	8.0	8.0
	2.00	8	8.0	8.0	16.0
	3.00	30	30.0	30.0	46.0
	4.00	29	29.0	29.0	75.0
	5.00	25	25.0	25.0	100.0
	Total	100	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	5.0	5.0	5.0
	2.00	4	4.0	4.0	9.0
	3.00	8	8.0	8.0	17.0
	4.00	24	24.0	24.0	41.0
	5.00	59	59.0	59.0	100.0
	Total	100	100.0	100.0	

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Frequencies

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re Defense\Data Analysis for Pre Defense.sav

Statistics													
		Faculty/School	Year	Gender	Age	Father's education	Mother's education	Father's profession	Mother's profession	Family's monthly income	What is the size of your house?	What is your birth order (Position in sibling)?	What is the type of your family, unclear or joint?
N	Valid	100	100	100	100	100	100	100	100	100	100	100	100
	Missing	0	0	0	0	0	0	0	0	0	0	0	0

Frequency Table

Faculty/ School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	TFSB	65	65.0	65.0	65.0
	CoSS	26	26.0	26.0	91.0
	CoE	1	1.0	1.0	92.0
	SFL	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

Year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshman	31	31.0	31.0	31.0
	Sophomore	25	25.0	25.0	56.0
	Junior	15	15.0	15.0	71.0
	Senior	29	29.0	29.0	100.0
	Total	100	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	31	31.0	31.0	31.0
	Female	69	69.0	69.0	100.0
	Total	100	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18.0	3	3.0	3.0	3.0
	19.0	13	13.0	13.0	16.0
	20.0	17	17.0	17.0	33.0
	21.0	22	22.0	22.0	55.0
	22.0	20	20.0	20.0	75.0
	23.0	8	8.0	8.0	83.0
	24.0	10	10.0	10.0	93.0
	25.0	2	2.0	2.0	95.0
	27.0	3	3.0	3.0	98.0
	28.0	1	1.0	1.0	99.0
	29.0	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

Father's education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undereducated	8	8.0	8.0	8.0
	Primary School	15	15.0	15.0	23.0
	Secondary School	23	23.0	23.0	46.0
	High School	39	39.0	39.0	85.0
	Undergraduate	13	13.0	13.0	98.0
	Graduate	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

Mother's education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undereducated	6	6.0	6.0	6.0
	Primary School	31	31.0	31.0	37.0
	Secondary School	31	31.0	31.0	68.0
	High School	24	24.0	24.0	92.0
	Undergraduate	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

Father's profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Civil Servant	17	17.0	17.0	17.0
	Farmer/Housewife	41	41.0	41.0	58.0
	Private Company	19	19.0	19.0	77.0
	Self-employed	23	23.0	23.0	100.0
	Total	100	100.0	100.0	

Mother's profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Civil Servant	6	6.0	6.0	6.0
	Farmer/Housewife	63	63.0	63.0	69.0
	Private Company	14	14.0	14.0	83.0
	Self-employed	17	17.0	17.0	100.0
	Total	100	100.0	100.0	

Family's montly income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	80.0	1	1.0	1.0	1.0
	100.0	2	2.0	2.0	3.0
	150.0	2	2.0	2.0	5.0
	200.0	7	7.0	7.0	12.0
	250.0	3	3.0	3.0	15.0
	300.0	14	14.0	14.0	29.0
	350.0	3	3.0	3.0	32.0
	400.0	9	9.0	9.0	41.0
	450.0	2	2.0	2.0	43.0
	500.0	17	17.0	17.0	60.0
	600.0	3	3.0	3.0	63.0
	700.0	8	8.0	8.0	71.0
	750.0	1	1.0	1.0	72.0
	800.0	5	5.0	5.0	77.0
	900.0	1	1.0	1.0	78.0
	1000.0	10	10.0	10.0	88.0
	1200.0	1	1.0	1.0	89.0
	1500.0	4	4.0	4.0	93.0
	1600.0	1	1.0	1.0	94.0
	2000.0	2	2.0	2.0	96.0
	3000.0	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

What is your birth order (Position in sibling)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	36	36.0	36.0	36.0
	2.0	33	33.0	33.0	69.0
	3.0	14	14.0	14.0	83.0
	4.0	8	8.0	8.0	91.0
	5.0	6	6.0	6.0	97.0
	6.0	2	2.0	2.0	99.0
	7.0	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

What is the type of your family, unclear or joint?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nuclear	61	61.0	61.0	61.0
	Joint	39	39.0	39.0	100.0
	Total	100	100.0	100.0	

CORRELATIONS

```

/VARIABLES=AP IA_05 IA_06 IA_07 IA_08 Income FR IA_15 IA_16 IA_17
/PRINT=TWOTAIL NOSIG
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```

Correlations

		Correlations									
		Academic Performance	Father's Education	Mother's Education	Father's Profession	Mother's Profession	Family's Monthly Income	Family Relations	Size of Family	Birth Order	Family Type
Academic Performance	Pearson Correlation	1	.341**	.270**	.294**	.283**	.302**	.378**	.200*	.050	.310**
	Sig. (2-tailed)		.001	.007	.003	.004	.002	.000	.046	.621	.002
	N	100	100	100	100	100	100	100	100	100	100
Father's Education	Pearson Correlation	.341**	1	.500**	.223*	.187	.278**	.079	-.146	-.193	-.010
	Sig. (2-tailed)	.001		.000	.026	.063	.005	.435	.148	.054	.924
	N	100	100	100	100	100	100	100	100	100	100
Mother's Education	Pearson Correlation	.270**	.500**	1	.087	.162	.258**	.116	-.123	.023	.123
	Sig. (2-tailed)	.007	.000		.390	.108	.010	.250	.224	.820	.223
	N	100	100	100	100	100	100	100	100	100	100
Father's Profession	Pearson Correlation	.294**	.223*	.087	1	.207*	.108	.240	-.070	-.071	-.007
	Sig. (2-tailed)	.003	.026	.390		.039	.285	.016	.492	.482	.942
	N	100	100	100	100	100	100	100	100	100	100
Mother's Profession	Pearson Correlation	.283**	.187	.162	.207*	1	.316**	.141	.044	.032	.029
	Sig. (2-tailed)	.004	.063	.108	.039		.001	.162	.667	.749	.772
	N	100	100	100	100	100	100	100	100	100	100
Family's Monthly Income	Pearson Correlation	.302**	.278**	.258**	.108	.316**	1	-.027	.021	-.095	.074
	Sig. (2-tailed)	.002	.005	.010	.285	.001		.793	.836	.345	.465
	N	100	100	100	100	100	100	100	100	100	100
Family Relations	Pearson Correlation	.378**	.079	.116	.240	.141	-.027	1	.195	.065	.142
	Sig. (2-tailed)	.000	.435	.250	.016	.162	.793		.051	.518	.160
	N	100	100	100	100	100	100	100	100	100	100
Size of Family	Pearson Correlation	.200*	-.146	-.123	-.070	.044	.021	.195	1	.553**	.206*
	Sig. (2-tailed)	.046	.148	.224	.492	.667	.836	.051		.000	.040
	N	100	100	100	100	100	100	100	100	100	100
Birth Order	Pearson Correlation	.050	-.193	.023	-.071	.032	-.095	.065	.553**	1	.205
	Sig. (2-tailed)	.621	.054	.820	.482	.749	.345	.518	.000		.041
	N	100	100	100	100	100	100	100	100	100	100
Family Type	Pearson Correlation	.310**	-.010	.123	-.007	.029	.074	.142	.206*	.205*	1
	Sig. (2-tailed)	.002	.924	.223	.942	.772	.465	.160	.040	.041	
	N	100	100	100	100	100	100	100	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

CORRELATIONS

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Correlations

Correlations

		Personality	Father's Education	Mother's Education	Father's Profession	Mother's Profession	Family's Montly Income	Family Relations	Size of Family	Birth Order	Family Type
Personality	Pearson Correlation	1	.281**	.151	.321**	.216*	.146	.362**	.142	-.075	.242*
	Sig. (2-tailed)		.005	.133	.001	.031	.147	.000	.158	.456	.015
	N	100	100	100	100	100	100	100	100	100	100
Father's Education	Pearson Correlation	.281**	1	.500**	.223*	.187	.278**	.079	-.146	-.193	-.010
	Sig. (2-tailed)	.005		.000	.026	.063	.005	.435	.148	.054	.924
	N	100	100	100	100	100	100	100	100	100	100
Mother's Education	Pearson Correlation	.151	.500**	1	.087	.162	.258**	.116	-.123	.023	.123
	Sig. (2-tailed)	.133	.000		.390	.108	.010	.250	.224	.820	.223
	N	100	100	100	100	100	100	100	100	100	100
Father's Profession	Pearson Correlation	.321**	.223*	.087	1	.207*	.108	.240*	-.070	-.071	-.007
	Sig. (2-tailed)	.001	.026	.390		.039	.285	.016	.492	.482	.942
	N	100	100	100	100	100	100	100	100	100	100
Mother's Profession	Pearson Correlation	.216*	.187	.162	.207*	1	.316**	.141	.044	.032	.029
	Sig. (2-tailed)	.031	.063	.108	.039		.001	.162	.667	.749	.772
	N	100	100	100	100	100	100	100	100	100	100
Family's Montly Income	Pearson Correlation	.146	.278**	.258**	.108	.316**	1	-.027	.021	-.096	.074
	Sig. (2-tailed)	.147	.005	.010	.285	.001		.793	.836	.345	.465
	N	100	100	100	100	100	100	100	100	100	100
Family Relations	Pearson Correlation	.362**	.079	.116	.240*	.141	-.027	1	.195	.065	.142
	Sig. (2-tailed)	.000	.435	.250	.016	.162	.793		.051	.518	.160
	N	100	100	100	100	100	100	100	100	100	100
Size of Family	Pearson Correlation	.142	-.146	-.123	-.070	.044	.021	.195	1	.553**	.206*
	Sig. (2-tailed)	.158	.148	.224	.492	.667	.836	.051		.000	.040
	N	100	100	100	100	100	100	100	100	100	100
Birth Order	Pearson Correlation	-.075	-.193	.023	-.071	.032	-.096	.065	.553**	1	.205*
	Sig. (2-tailed)	.456	.054	.820	.482	.749	.345	.518	.000		.041
	N	100	100	100	100	100	100	100	100	100	100
Family Type	Pearson Correlation	.242*	-.010	.123	-.007	.029	.074	.142	.206*	.205*	1
	Sig. (2-tailed)	.015	.924	.223	.942	.772	.465	.160	.040	.041	
	N	100	100	100	100	100	100	100	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix E: Previous Studies

The Comparison Among the Aforementioned Prior Studies

No	Studies	Data	Methodology	Findings and Further Research
1	Khan et al. (2018), Malaysia	A total of 101 students from IPG Kampus Temenggong Ibrahim were chosen to be part of the respondents with the use of simple random sampling, Malaysia.	Quantitative research method is being selected through the use of questionnaire. The chi-square test, Spearman's Correlation and Multiple Regression was used for testing the hypothesis. The instrument Big Five Inventory (BFI), Kolb's Learning Style Inventory and the students' academic achievement is measured through the Cumulative Grade Point Average, also known as CGPA.	The research also revealed that there is no significant effect of the combination of both the personality traits and learning style towards the prediction of the academic achievement among school students. The further research should include more variables and improvements to be added in to the suggestion and recommendation which can be included by the future other researchers for the improvement of future similar researches result outcome.
2	Sobowale et al. (2018) USA	The 960 third-year students from 24 medical schools throughout the USA in January 2011. The sample of 468	The quantitative conducted multivariate logistic regressions.	This study suggests the importance of personality traits, particularly conscientiousness, in predicting success

No	Studies	Data	Methodology	Findings and Further Research
		students who completed both surveys was 45.1% female, 61.5% white, and 8.3% black. These schools were chosen from 133 allopathic medical schools listed in the American Medical Association's Physician Master File.	The NEO Five Factor Inventory (NEO-FFI) is a widely used measure based on the five-factor model of personality. Items are answered on a five-point scale from one (Strongly Disagree) to five (Strongly agree). Medical College Admission Test (MCAT) scores and undergraduate grade point average.	during the clinical years of medical school. Future research should examine whether these traits are associated with sustained positive clinical performance into residency and clinical practice.
3	Mammadov et al. (2018) USA	The participants of this cross-sectional study were 161 gifted middle and high school students who had participated in Northwestern University's Midwest Academic Talent Search (NUMATS) and/or the Northwestern University Center for Talent Development (CTD) programs during the Academic Year 2014–2015.	A quantitative path analysis model was used to test the hypothesized mediation model using IBM SPSS Amos 22.0 (IBM Spss, 2013). The American College Testing (ACT) or ACT Explore composite scores were used as a measure of academic achievement. The Big Five Inventory (BFI; John, Donahue, & Kentle, 1991) was used to	The result shown that all three personality traits had direct associations with academic achievement. Big Five personality traits and academic achievement, future researchers should be able to further investigate this interplay with larger samples to clarify the causal direction of effects and the mediating processes.

No	Studies	Data	Methodology	Findings and Further Research
			measure students' personality traits defined by the Big Five personality model. Internal consistencies for the BFI 0.82. Academic Self-Regulation Questionnaire (SRQ-A; Ryan & Connell, 1989) was used to measure students' academic motivation. Cronbach's alpha values 0.92. Self-Efficacy for Self-Regulated Learning subscale of the Children's Self-Efficacy Scale (CSES; Bandura, 2006) was used to measure students' self-regulatory efficacy. Cronbach's alpha coefficient was 0.88.	
4	Zahedani et al. (2016) Iran	There are 1600 students as population and 310 students were selected randomly as the sample.	This is a correlation study carried out at Shiraz University of Medical Sciences. To study the relation between variables	The result was a significant relationship between authoritarian parenting style and educational success ($p=0.03$). Also, findings showed a significant

No	Studies	Data	Methodology	Findings and Further Research
		Baumrind's Parenting Style and Moqimi's Career Path questionnaires were used and the obtained scores were correlated with the students' transcripts.	Pearson correlation coefficient was used. Questionnaire: for permissive style, authoritarian style, and firm style, the reliability coefficients were respectively 0.72, 0.80, and 0.85, and for the Career Path Questionnaire: $\alpha=0.82$. The GPAs of senior students of various fields of study in Shiraz University of Medical Sciences in the academic year 2014 were used to determine the educational success.	relationship between firm parenting style. The research sample is limited to the students, it is likely that factors such as age, education, culture, social situation, workplace, etc., influence educational achievement; therefore, it is recommended to consider these factors in the same future studies.
5	Kakkar (2016) India	Initial sample will be 160 which will be taken randomly from Rohtak District of Haryana. The whole sample will be drawn from Senior Secondary Schools students.	Quantitative studies using the statistical techniques such as 1. Mean 2. Standard Deviation 3. t-test 4. Correlation	The result showed that there is a positive relationship between home environment and academic achievements of secondary school students. The investigator concluded that the data showed very much impact of home

No	Studies	Data	Methodology	Findings and Further Research
			Research instrument: Home Environment Inventory (HEI) developed By Dr. Karuna Shankar Misra's academic Achievement of senior school students on the basis of X class results.	environment and academic achievements. Further research, other than the adolescent group of students any other age group can be taken for the study which shall help to find out the difference of the impact of home environment. Any other aspect of personality like attitude, intelligence, creativity and aptitude can be selected to see impact or home environment on these aspects. Other than home environment any other variable like school environment, locality, peer group and physical environment can also be taken to study their impact on academic achievements of students.

No	Studies	Data	Methodology	Findings and Further Research
				The study can be conducted on a larger sample then selected for the present study which can make the results more reliable.
6	Cho and Coulton (2016) Korea	This study used data from two waves of the Korean Children and Youth Panel Survey (KCYPs) for middle-school cohort, a longitudinal panel study of 2300 middle school students in South Korea. The KCYPs is a nationally representative panel survey, which is based on a stratified multi-stage sample of 75 schools in 16 cities and provinces. Our sample size to 1100 dual-earner households.	The quantitative study and the research performed a cross-sectional ordinary least squares (OLS) regression. In the 2nd and 3rd years of middle school (between October and December), students were asked the following question: What were your test scores in previous semester? 'Adolescents' scores were measured in 8 categories, ranging from B1=96 to 100 points^ to B8=less than 64 points. The predictors in our analyses were the father's and mother's nonstandard work schedule, measured at the 2011 and 2012 surveys.	These results provided suggestive evidence that the negative effect of parental nonstandard work schedules on South Korean adolescents' academic achievement may be due, at least in part, to selection bias. The future studies on the impact of nonstandard work schedules need to employ robust methods to minimize selection bias.

No	Studies	Data	Methodology	Findings and Further Research
7	Núñez et al. (2015) Spain	There were Spanish 1683 students. The students, 10 to 16 years old, attended 94 classes in 10 urban public schools. About 51 % were boys (858) and 49 % were girls (825). The total sample was subdivided into three subgroups: 433 elementary school students in grades 5 and 6 (i.e., fifth grade: n=216, 104 boys and 112 girls; sixth grade: n= 217, 108 boys and 109 girls); 716 junior high school students in grades 7 and 8 (i.e., seventh grade: n=370, 192 boys and 178 girls; eighth grade: n=346, 183 boys and 163 girls); and 534 high school students in grades 9 and 10 (i.e., ninth grade: n=257, 132 boys and 125 girls, and tenth grade: n=277, 139 boys and 138 girls).	Quantitative study using descriptive and inferential statistic using ANOVA and regression. The research instrument was measures of students' perceptions of parental homework involvement and students' homework behaviors were gathered using a questionnaire for students and the students' academic achievement data (report card grades) were provided by the secretariat of each school.	The results revealed that student homework behaviors, perceived parental homework involvement, and academic achievement are significantly related. The study also suggested new questions for future research such as perceived parental involvement and academic achievement, and student homework behavior and academic achievement.

No	Studies	Data	Methodology	Findings and Further Research
8	Damian and Roberts (2015) Ghana	Over 440,000 students in grades 9 through 12 participated, of which 377,016 cases are now available. As a result, the final study sample consisted of 272,003 targets (53.2% female).	The quantitative study by using descriptive statistics and inter-correlations among all the variables of interest. Participants answered two questions relevant to determining birth order: “How many of your brothers, half-brothers, foster-brothers, or stepbrothers are older than you?” and “How many of your sisters, half-sisters, foster sisters, or stepsisters are older than you?” Regarding sibship size, participants answered the following question: “What is the total number of living children in your family? Include yourself, together with all full, half-, step-, and foster siblings.” Answer	Result found very small associations between birth order and personality, with an average absolute partial correlation of 0.02. The hypothesized relation between birth order and both personality and intelligence, concluded that the magnitude of the effects would indicate that birth order is not an important consideration to either of these outcomes. Future research, it would be a longitudinal within-family design study, where each sibling’s personality and intelligence were assessed at the same age, using self-reports, parent-reports, peer-reports, and IQ tests. There would be plentiful measures of between-family

No	Studies	Data	Methodology	Findings and Further Research
			choices ranged from 1 (“One”) to 12 (“Twelve or more”). Project Talent Personality Inventory (PTPI) included 150 items from which ten different scale composites were scored and recorded. Project Talent contains a set of scales that represent different content domains of cognitive abilities, including verbal, quantitative, and visualization and spatial abilities.	variation, such as parental SES, parental age, education, family structure, sibship size, age distance between siblings, and type of sibship.
9	Morrissey et al. (2014) USA	The present study included a subsample of 35,419 children attending 259 public schools who remained in the study through kindergarten. All data were obtained from elementary school records.	The research based on quantity method using descriptive and regression analysis. All the data for measurement got from the school records each year. It was Income status, School absence and tardiness, Academic achievement, Child and family characteristics.	Results suggested that the receipt of free or reduced-price lunch and duration of receipt have small but positive associations with school absences and tardiness. Poor attendance patterns predict poorer grades, with absences more associated with grades than tardiness.

No	Studies	Data	Methodology	Findings and Further Research
				Further research is needed to shed light on other mechanisms through which family income affects children's achievement.
10	Khan et al. (2014) Malaysia	The participants of this study consisted of 200 special education students (105 boys and 95 girls) from age 14 to 19 in one of the schools in Kuala Lumpur. Participants belong to Chinese ethnic group was N = 80, followed by Malay which was N = 65 and Indian N = 55. The school was one of the schools who have Special Education Programs Integration in Kuala Lumpur, Malaysia	The quantitative study by using inter-correlation matrix. The instrument consists of (1) <i>Parenting Practices Questionnaire (PPQ)</i> by Robinson et al., 1995, it consists of three parenting styles of authoritarian, permissive, and authoritative. Authoritarian items have a Chronbach's alpha of 0.86, permissive items have a Chronbach's alpha of 0.75, and authoritative items have a Chronbach's alpha of 0.91 (Robinson et al., 1995). (2) <i>Educational Encouragement Scale</i> ; Gloria and Rodriguez (2000), Evans	Results showed positive relationship of academic achievement with educational encouragement (from mother, father, parents and teachers) and authoritarian parenting styles. Significant positive correlations showed authoritarian parenting styles, educational encouragement playing key roles in academic achievement. Future research should look more into authoritarian parenting styles of students with larger sample, which may represent Malaysian students.

No	Studies	Data	Methodology	Findings and Further Research
			(1995), Dreikurs, Grunwald, & Pepper (1982) and alpha coefficient of 0.88 in the present study. (3) Academic Achievement: Academic achievements were assessed from their last exam grades.	
11	Ford (2013) USA	The quantitative research participants for this study consisted of approximately two hundred and seven (207) middle school African American and Hispanic students in 7th and 8th grade from a metro-Atlanta school district.	This is the Mixed method research design. The descriptive, correlation, and Multivariate Analysis of Covariance (MANOVA). Grounded in the conceptual framework of Vgotsky's Constructivist Theory. The instrument 2012 CRCT results data in Reading, English Language Arts, Social Studies, Science, and Math for 6th, and 7th grade students from metro-Atlanta were used.	The quantitative data revealed that no significant relationship existed between culturally diverse students' socio-economic status and their academic achievement. Further research is needed at different school levels such as the elementary, high school levels, college in order to provide better empirical evidence of the relationship between socio-economic status and the academic achievement of culturally diverse students.

No	Studies	Data	Methodology	Findings and Further Research
12	Daleure (2013) Malaysia	Population of 2,800 student, 1,173 students surveyed, 90% were female and 10% were male, with 81% being from 19-22 years old. About half (54%) were from the main urban center while 46% were from outlying areas. About half (51%) had nine or more family members, with 78% having at least one sibling studying in a college or university.	Using two surveys, one for students and another for guardians, this study examined the relationships among family involvement, home environment, and Emirati college student performance. Running through SPSS and Stat PLUS statistical software to obtain descriptive statistics and correlations (Pearson r). Instrument: Student Online Survey. The 66-item bilingual student survey was developed by the research team by identifying family involvement behaviors and home environment factors associated with student achievement based on the relevant literature. Guardian Telephone Survey. The 29-item guardian telephone survey was	Results indicated that academic performance was linked to specific family involvement behaviors—categorized as enablers—financial, logistical, and physical supports; influences—interaction intended to shape values, opinions, and attitudes; and engagements—direct and demonstrable interaction—and to specific home environment factors including parents’ marital statuses, gender, family size, presence of siblings in college or university, parents’ education levels, and mother’s working status. Further research, the findings are not generalizable, the study serves to develop an understanding of the relationships among home environment,

No	Studies	Data	Methodology	Findings and Further Research
			designed to supplement and support the data obtained from the student survey. Student Grade Point Averages (GPA) were weighted by quartiles: 0.25 for first quartile (lowest scores); 0.5 for second quartile (medium-low scores); 0.75 for third quartile (medium-high scores); and 1 for fourth quartile (high scores).	family involvement, and student achievement, which can be used to provide the necessary background understanding for future studies on this topic at the difference context.
13	Altschul (2012) USA	There were 1609 Mexican American students and their parents for the respondents, and the mean age of the students was 14.3 years and female were 51.4%. The data were obtained from the National Educational Longitudinal Study of 1988 (NELS).	The quantitative study method using correlation study. The academic achievement was recorded by four Standardized Test. For socio-economic status was combined with family income, mother's education, father's education, mother's occupation, and father's occupation.	The research finding showed that maternal career and family income influenced academic achievement of student while the father's education did not. In addition, parent involvement also predicted academic achievement. For further research, parent investment plays more important role in youth's achievement than family stress, so

No	Studies	Data	Methodology	Findings and Further Research
				further research needs to explicitly test model related to acculturation stress.
14	Lee et al. (2012) Korea	Three elementary schools in South Korean urban areas. One school in Seoul and two schools in Gyeonggi Province. In each school, two classes were randomly selected from each grade among the fifth- and sixth-grade classes. The participants comprised 204 fifth graders (52.6%) and 184 sixth graders (47.4%); 195 of these students were boys (50.3%) and 193, girls (49.7%).	Descriptive statistics and zero-order correlations were computed for all measures, through the use of SPSS 15.0 (SPSS Inc., Chicago, IL, USA). To measure parental acceptance and psychological control, we used Korean translations of 20 items from the acceptance and psychological control subscales of CRPBI-30, a 30-item version of the Children's Reports of Parental Behavior Inventory (CRPBI; Schaefer 1965; Schludermann and Schludermann 1988). The Cronbach's alpha values for parental acceptance and psychological control, as used in this study, were 0.88 and 0.70, respectively	The results showed that parental acceptance, psychological control, and behavioral control were not directly related to children's school outcomes. Parental acceptance and behavioral control indirectly influenced the children's school outcomes but were mediated by the children's self-regulation. In the future, the researchers sought to examine whether the influence of parental psychological and behavioral control on children's school outcomes was consistent between Western and East Asian cultures.

No	Studies	Data	Methodology	Findings and Further Research
			To measure behavioral control, we used Korean translations of all 14 items of Shek's (2006) Paternal Knowledge Scale (PKNO) and Maternal Knowledge Scale (MKNO), and the Paternal Expectation Scale (PEXP) and Maternal Expectation Scale (MEXP). The Cronbach's alpha of the scale was 0.80. In order to measure children's school adjustment, we used the School Adjustment Questionnaire developed by Lee (2005). The Cronbach's alpha of the scale was 0.95. Students' grades by using the self-report method.	
15	Schofield et al. (2012) USA	A sample of 451 two-parent families was recruited via telephone through the cohort of all seventh-grade students (ages 12–13), male and	This study used the standard chi-square index of statistical fit, and correlation for quantitative study.	The results suggested that parents may play a significant role in the development of adolescent personality traits that promote competence and

No	Studies	Data	Methodology	Findings and Further Research
		female, in eight counties in north central Iowa who were enrolled in public or private schools during winter and spring of 1989.	Parent personality was assessed in 1990 by using parent's self-report on the NEO Five-Factor Inventory (NEO-FFI), All scales had acceptable composite reliability (α 's > .80).	personal well-being across the life course. The further research replication with other ethnic groups will increase the confidence in the generalizability of the findings by using data from other ethnic groups or nationalities, the attempted replications have usually been successful. It is concerned somewhat diminished by the fact that other findings from this sample related to associations among economic stress, personal characteristics, family relationships, and child adjustment have been replicated across a number of ethnic groups
16	Nyarko (2011) Ghana	The sample for the present study was drawn from three senior high schools in the central region of Ghana. Only	The quantitative study using description and correlation analysis. The authoritative parenting scale was	The results showed that both mothers' and fathers' authoritativeness positively

No	Studies	Data	Methodology	Findings and Further Research
		second year and third year (final year) students were used in the study. The schools are; University Practice Secondary School, Ghana National College and Assin Manso Secondary School all located in the central region of Ghana. There are sample of 239 adolescents, 45.2% were males and 54.8% were females.	developed to measure the degree of authoritativeness of the parents (Steinberg, Mounts, Lamborn, & Dornbusch, 1991). It has three majors components or dimensions: acceptance/involvement, firm control, and psychological autonomy granting. The original scale has a total of 36 items representing the 3 dimensions of the variable. The alpha coefficient of 0.72.	relate to the academic achievement of the students. Future studies should therefore try to 1. Find out the relationship between authoritarian and permissive parenting styles and the academic achievements of the students, 2. A comparison among the three different styles to find out the most appropriate one in terms of their impact on the academic achievements of the students, 3. To find out the influence of parenting styles on preteens, and 4. Find out the mediating role of parental involvement between parental authoritativeness and the students' academic achievement.

No	Studies	Data	Methodology	Findings and Further Research
17	Perry and McConney (2010) Australia	The source of the data took from the Australian 2003 Program for International Student Assessment (PISA), the same consisted of 320 secondary schools and over 12,000 students from Australia.	This research used quantitative study. Quantitative descriptive statistic was employed to compare the average of reading, mathematic, and science achievement of the student from different socio-economic status background. The secondary data used from the Australia 2003 PISA.	Finding: The increase of the mean socioeconomic status of the student was associated with increasing the academic achievement of the students. Future recommendation: To future researchers should develop more factors, policies, structure that association between mean school SES and student academic outcomes.
18	Weiser and Riggio (2010) USA	There were 193 undergraduates which contained 54 were men and 139 were women. The mean age of the participant was 20.01 from the state university in Southern California.	The quantitative research study using regression analysis. The researcher used general self-efficacy 17 items from (Choi 2003; Wodruff and Cashman 1993) which consisted 13 likert scale from strongly disagree and strongly agree that had the Cronbach's alpha .85. Academic self-efficacy measurement adapted from Sherer et al. 1982 which had 18 items,	The finding revealed that the family background of the study could not predict the academic achievement. However, the self-efficacy was strong predictor of the grade point average. For further research should focus on overall model of family environment, self-efficacy and academic achievement. Many family variables

No	Studies	Data	Methodology	Findings and Further Research
			13 likert scale and the Cronbach's alpha .86. Academic outcome instruments contained 7 items in 9 points scale with Cronbach's alpha 0.82, Parental involve adapted from Mji and Mbinda (2005) had 16 items, 5-points scale, and 0.92 for Cronbach's alpha. Parent's educational aspiration had 16 items, 9 points scale, and 0.92 Cronbach's alpha. Parental attachment questionnaire (Kenny 1987), 48 items, 5 points scale, Cronbach's alpha 0.94 and 0.93 for father and mother respectively. Home affluence scale adapted from (Waredle et al., 2002), 6 items, yes/no response, and the Cronbach's alpha was 0.57.	may influence such as higher level of parental relationship, and parent involvement. Replication of the study of how variable of the family work together and impact the academic outcome.

No	Studies	Data	Methodology	Findings and Further Research
19	Rogers et al. (2009) Canada	There were 110 fifth grade (47 boys, 63 girls) and 121 sixth-grade (63 boys, 58 girls) from 4 elementary school in a small Canadian City. The age of student ranged from 10 to 13 years old.	The quantitative study on Matrix correlation. Researcher employ survey questionnaire for data collection. There were family school questionnaire (FSQ), 48 items, 5 Point -Likert Scale, and Cronbach's alpha was .75. Self-Confidence Attitude-Attribute Scale (SAAS), 5 Points Likert Scale, and Cronbach's alpha was from .8 to .9. School Activities Questionnaire-Teacher Form (SAQ-T), 10 statements, 5 Points Likert Scale, and Cronbach's alpha was .97. and Report card grade in math, science, and language arts.	The results of correlation matrix for variable in the model showed that school-focused parents' involvement in the home was associated with children's school achievement. For future research should endeavor to test the associate seen in this study in more different samples. Further studies should use standardized tests of achievement or observation in the classroom as the outcome measurement, and parents' and teacher's perception as the predict variables.
20	Turner et al. (2009) USA	Participants in the current study were 264 undergraduate students enrolled in psychology courses at a major university in the southwestern United States. There were 92 male and 172	The quantitative research by using descriptive and linear regression. Researcher used questionnaire to collect the data. The Parental Authority Questionnaire (PAQ; Buri,	Result showed that the parenting characteristics such as supportiveness and warmth continue to play an important role in influencing a student's

No	Studies	Data	Methodology	Findings and Further Research
		were female. The participants were freshman, sophomore, junior, and senior.	1991), 30 items, 5 Likert Scale, and Cronbach's alpha was .74 to .87. The academic motivation scale-college Version (AMS-C; Vallerand et al.,1992), 28 items, 1 to 7 scale, Cronbach's alpha was .77 to .92. The Self-Efficacy and Study Skill Questionnaire (SESS), 32 items, 5 points Likert Scale, Cronbach's alpha was .8. Academic Performance used student's self -reported GPA.	academic performance even after entering college. The further research may examine the ethnic difference in parenting style and academic performance in college students.
21	Hanafi (2008) Korea	There were 14 schools among 129 schools in the state of Kedah, and there were 430 respondents (284 females and 146 males).	The quantitative method by using descriptive and correlation statistic. There were two questionnaires such as mothers' and fathers' educational level and reading materials. The academic achievement was based on the result of the training in science and mathematics in the first term of examination.	The results showed that the mean of mother's education level was 3.39 and father's education level was 3.65. In addition, the reading materials available at home were newspapers, magazine, comics, story books, computer programs and, educational games. The result revealed that the

No	Studies	Data	Methodology	Findings and Further Research
				socioeconomic factor was associated with adolescents' academic achievement. Further research should be replicate to examine in different racial group, location, parents' age group, relate other socio -economic factors such as parent's profession, salary, and number of household members.

