



## RESEARCH ARTICLE

## Educational Big Data Mining: A Longitudinal Study of the Impacts of Life Management on Academic Performance

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| ARTICLE INFO   | ABSTRACT  |
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| Received: Nov 18, 2024   | Quality-of-life management represents the ability and image of students in the study process. However, worldwide statistics have shown declines in academic performance due to the covid-19 pandemic. This causes attention and urgency to warrant productive life management among the student without affecting academic performance. This research uses the National longitudinal study among student datasets (18-26 years) to analyze life management covariates and their impact on education. Three data sets are merged, cleansed, and transformed (N=3947, currently in life management = 3015 (61.76%)). SPSS is used to analyze the correlation between life management with various factors (51 education variables,, 3 graduation variables and 51 demographic variables). The results indicated that the greatness of life management is that 76.39% (aged 18-26) of the students have quality life management with 40.23% scoring GPA 3.0-4.0. The variables in this study are significantly related to life management. The management of a good quality of life positively affects GPA and has a significant low failure rate during the study. To improve the success of the management of young adults' good quality of life while guaranteeing educational quality to promote a civilized society, future research into the construction of predictive models of young adults' life management and academic performance must incorporate the knowledge from this study. |
| Accepted: Jan 9, 2025  |   |
| <b>Keywords</b>  |   |
| Academic Performance<br>Life Management<br>Student in High School<br>Education |   |
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### INTRODUCTION

Students' academic performance embodies an essential part of the constellation of factors determinant of student success. It also plays an important role in education, primarily as a concrete tool for assessing the learning process. Recent years have witnessed a rapid change in lifestyle due to the availability of a wide range of health conditions, financial situations, daily habits, etc. These factors will contribute to whether a student can manage their lives in a healthy and consistent way while also excelling in his studies. The impact of managing one's life can be significant in affecting their academic performance. Thus, our goal is to determine whether there is a significant relationship between these variables and their academic performance. (Tus, 2020) has conducted a study where one of the significant factors in assessing academic performance is through their study and attributes. They concluded that the success of each student depends on his study habits. In addition, their

success depends on their ability, intelligence, and effort. Over these years, education has become more significant and it has become one of every individual. Education is the process in which an individual acquires or imparts basic knowledge to another. It is also where a process develops essential skills for daily living, learns social norms, develops judgment and reasoning, and learns to discern right or wrong. Ultimately, the primary goal of education is to help an individual navigate life and contribute to society once they have become older. However, it is also important that people manage their lives well by maintaining the correct lifestyle toward which they should adapt. For example, controlling and having a balanced diet is important for individuals to have a good physique, and healthy minds will be able to help students concentrate in their lessons. Afterwards, students should also be aware of their financial state, where they should have self-independence and self-control over their expenses. Lastly, having a good lifestyle is having good habits to carry in them, such as doing physical exercises to keep their body in good shape.

For the academic world, higher education systems represent a good quality learning style and have a great future for students. However, studying in higher education will be difficult and affect academic performance for students with limited financial resources, since higher education commonly requires the education fee, which is unaffordable to the student. From analytical schemes such as Astin's input-environment model (Astin,1993), it discusses that the relationship between economic status and academic performance in higher education can be affected once additional variables are considered. Additional variables such as students being able to find the external income to cope with their burden of expenses in education. Moreover, some of the external income can affect academic performance because students need to put effort into acquiring external income to maintain their economic life. However, it will make it difficult for students to concentrate on academic aspects. This research shows that there is an association between personal activities and academic performance.

The performance in school is very important to students for their future. This directly affects the student for their future studies, especially for the student who wants to study abroad. This is because students who score well on their examination will have a greater chance of entering a better university and a scholarship. Therefore, by doing this research, we want to find out what daily activities will affect your academic performance. Usually, daily activities of students include spending time on their hobby, exercising and relaxing. As a result, these all-day activities will positively or negatively affect your academic performance. Wassenaar et al. (2019) has stated that converging lines of evidence point to the possibility that regular physical activity (AP) and increased aerobic fitness could improve cognitive function, stimulate positive brain changes, and increase academic achievement for students. Therefore, if daily activities are planned with exercise, they can improve their physical and mental skills to improve their academic performance. The above research shows that there is an association between daily activities and academic performance.

The primary objective of an educational institution is to achieve academic excellence. However, it is also important to maintain good health status, especially for students. Knopf et al. (2016) have mentioned that health problems such as vision and oral health problems, asthma, teen pregnancy, malnutrition, obesity, chronic stress, inattention, and hyperactivity disorders, and risk-taking behavior such as aggression and violence, unsafe sexual activity, unhealthy eating, physical inactivity, and substance use are associated with low scholastic performance. Sarwar et al. (2019) have conducted a study that shows that mental health of students is suboptimal compared to physical health, especially among female students. Students with better physical health will contribute to better academic performance. This is because having good health conditions tends to assist students' academic performance much better than those who are not. For example, students who have sufficient sleeping hours will be better concentrating on their studies and lectures, as well as maintaining a good physique by balancing their diet and thus improving their academic performance overall. Sarwar et al. (2019) have also mentioned that there is a significant association between physical activity and academic performance of students. It is understandable that school assessments

add mental and physical stress towards them. McIsaac et al. (2015) in a study of elementary school students concluded that elementary school students with unhealthy lifestyle behaviors were more likely to have poor academic performance. It is important for us to study general health management in relation to changes in student academic performance.

## **LITERATURE REVIEW**

### **General health and diet**

Many recent studies have focused on the problem regarding the importance of general health for academics. However, few researchers have taken health management into account. Previous studies have identified the impacts of health management skills that will significantly affect students' academic performance. Matingwina (2018) is conducting research on the associations between health, academic achievement, and school-based interventions, and there is research evidence that shows that people who are healthy are at lower risk with school problems. Sarwar et al. (2019) have identified health-related qualities of life, including the way of handling mental health and physical health and its relationship with academic performance in a group of individuals. The results showed that mental health is suboptimal compared to physical health and that better physical health leads to better academic performance (Chaw et al., 2024; Tin et al., 2024).

In the literature, there is consistent evidence that shows that a healthy lifestyle will greatly produce a positive impact on academic performance. Sarwar et al. (2019) have stated that specifically female medical students suffer more stress and burnout, especially during attending autopsy and interacting with patients in their clinical training. This causes poor scores in role limitation due to emotional problems, vitality, bodily pain, general health perception, and physical component compared to male students. Furthermore, in a study of 78 medical students of Sri Lanka, quality of life scores were lower before the examination compared to the scores after the examination. This is due to the extra mental and physical stress added by examinations. McIsaac et al. (2015) have conducted research of elementary school students that has concluded that students with unhealthy lifestyle behaviors were more likely to have poor academic performance. Studies have identified genetic markers to explain the complex association of poor health with lower academic achievements. Matingwina (2018) has summarized and created a list that shows the results produced by the research. It is stated that students with greater depression symptoms are more likely to report difficulty concentrating in class and completing homework. In addition, students who report high levels of psychosocial stress are more likely to perceive themselves as less academically competent. High school students who positively detect psychosocial dysfunction have three times the absentee and tardy rates of students not identified with psychosocial dysfunction.

However, in an era of rapid revolutions in the medical industry and advancement of technologies, health management skills are no longer adequate to conduct research on the relationship with academic performance, as most educational learning platforms have moved to digital platforms such as Google Meet or Zoom due to the Covid-19 pandemic. Most tasks and assignments can be completed online. This will reduce the risk of students getting sick and infected with the virus as they can work on their tasks remotely from home without having to travel to school. Mental illnesses such as stress and burnout will also be reduced due to a more flexible learning environment as all work can be completed indoors. This also means that the findings of older studies may not be relevant to younger generations.

### **Economics and personal future**

In the age where the emphasis is on money, any aspect will have a heavy impact. Therefore, the theme here also reflects the importance of economic support in academic performance. To fully understand the current changes and effects in higher education. Several investigations have explored the relationship between personal economic and academic performance.

Rodríguez-hernández et al. (2020) has theorized that the link between the personal economy may affect academic performance, and the research has mentioned that whereas economic support indicates whether a student is adequate for learning. Awadalla et al. (2020) have focused on economics on student depression and social changes, as well as mental health. Studies show that students with economic stress tend to suffer from anxiety, poor concentration, and low self-esteem that seriously affect academic performance and the student's mental health.

Through related work, there is associative evidence showing that personal economics will affect academic performance based on student social status and economic situation. But Rodríguez-hernández et al. (2020) has indicated that prior academic achievement is stronger will make the student in lower social status to be maintained greatly in their academic performance. For example, courses in academic preparation before university. There is an example of this type of program which is organized by the Australian government. Enabling programs will help poor economic student cultivate literacy, numeracy, communication, and criticality as preparation for higher education studies and will give them the basics to handle the progress of academics in university and will be able to handle their economic sources at the same time. Furthermore, university experience will also help poor students improve their academic performance. The meaning of experience at university such as classroom environment, quality and quantity of the instruction, peer support, and positive energy at school. But there is research that indicates that working during the study could have a negative effect on academic performance. Furthermore, students who work part-time within their own academic areas will perform better than students who work outside the academic area. Hence, the work not only allows the poor student to overcome their economic needs but also to increase and extend their academic experience and cultivate the related knowledge which without study at the university. However, in this modern age, it is advocated all over the world that schools provide scholarships to motivate students to study as well as other financial aid to help poor students relieve their living expenses and the pressure of tuition fees needed for study. With all the financial resources available today, this means that modern students may not be able to participate in research.

### **Daily Activities**

Numerous case studies have focused on the issue of how important physical activities are to academic success today. However, only some of the researchers have thought about daily activities. Some research has shown that students' academic performance will be strongly impacted by daily activities that students do.

de Greeff et al. (2018) conduct research on the associations between physical activity, academic performance, fitness, cognition, mental health, and the brain of adolescents that shows that students who are active in physical activity have a higher chance to perform well than the student who does not. Anderson and Durstine (2019) have investigated the impact of physical activity on executive functions, attention, and academic performance. The executive functioning, attention, and academic performance of young children were found to benefit from physical activity. Therapies that target regular, consistent physical exercise for several weeks are expected to have the greatest impact.

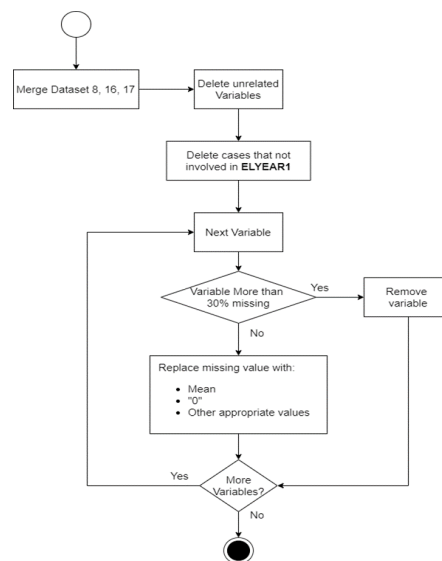
Physical activity has a significant favorable effect on academic achievement, according to a body of research that has been done. de Greeff et al. (2018) have stated that one bout of physical activity (referred to as "acute physical activity") is thought to significantly boost the child's physiological arousal, which in turn improves cognitive performance by increasing the allocation of attention. An increase in neurotransmitters, such as adrenaline, dopamine, and brain-derived neurotrophic factors, is caused by acute physical exercise, according to psychophysiological theory, and these neurotransmitters are supposed to improve cognitive functions. On the other hand, the cardiovascular fitness hypothesis proposes that continuous aerobic exercise over a period (a longitudinal physical activity program) will improve aerobic fitness, which will then improve cognitive function. When compared to physical activities with relatively low cognitive involvement,

such as tennis, where kids must strategize, pay attention, and so on, it is claimed that activities with relatively high cognitive engagement have a greater impact on executive functions (e.g., long distance running, which involves more automated movements). These many underlying mechanisms imply that the time or kind (aerobic versus cognitively engaged) of physical exercise selected may have an impact on the effects of physical activity to increase attention, executive skills, and academic achievement in children. Anderson and Durstine (2019) have conducted research on physical activity (AP) and aerobic exercise can improve cognitive function, promote academic achievement, and trigger favorable changes in the brain. According to animal models used in neuroscience studies, aerobic exercise raises levels of growth factors that are involved in synaptic plasticity, especially in the hippocampus. Increased growth factor synthesis is believed to encourage the formation of new blood vessels and neurons as well as their integration into the area's preexisting cell networks at the cellular level. Studies on brain function and structure using neuroimaging have been conducted on adults and, increasingly, on children. One possible mediator of the link between fitness level and memory outcomes is the volume of the hippocampus, which is greater in healthy children.

The student's lifestyle will significantly change, though, because of the rapidly advancing technological revolution. As a result, because most students are spending more time on their electronic products, research is no longer sufficient to investigate the association between academic performance. Housework and e-learning assignments are the two daily activities that students engage in most regularly. This will reduce the likelihood that the student will engage in physical activity. On this basis, it is also possible that the results of earlier research are obsolete for more recent generations.

## RESEARCH METHODOLOGY

The merged data sets are cleansed and transformed using the steps shown in Figure 1. First, variables that are unrelated to our research question will be removed. Then, cases that are not involved in our research will be removed based on the variable ELYEAR1. Afterwards, variables with more than 30% missing values will also be discarded from the combined data set. The total number of cases after the data cleansing is performed will be 3015. The missing values will be replaced on different considerations. For example, variables associated with missing value will be replaced with mean value, of the variable from the Math level year 1-4 missing values will be replaced with '0', indicating that no math subject is taken for that case. Original data sets are available on the Interuniversity Consortium for Political and Social Research Web pages (ICPSR, 2022).



**Figure 1. Dataset cleansing and transformation process.**

**Data Collection**

Three ICPSR datasets (DS8 – Demographic, DS16 – Education, DS17 – Graduation) are merged using SPSS and have been cleansed and transformed. 106 variables are confirmed as the finalized data set as shown in Table 3. The main dependent variable is the respondent ID (AID) that is associated with 106 remaining variables in the data set. There are a total of 51 variables in the category of education, 3 variables in the category of graduation, and the remaining 52 variables are in the category of demographic. Due to the large number of variables that are included within the Demographic data set (1831 variables), we have chosen the variables based on our research topic which is related to life management such as general health, personal economics and income, and daily activities. We have sorted through Section 9 (General Health and Diet), Section 15 (Economics and Personal Future), Section 33 (Daily Activities) to select variables specifically only from this part of the dataset.

**Table 1. Dataset variables detailed.**

|                          | Total Variables | Variables Description   |   |  |
|--------------------------|-----------------|---|---|--|
| AID                      | 1               | Respondent ID   |   |  |
| DS16 – Education         | 51              | 1st year of high school course taking (ELYEAR1)                           | Highest Science Level Taken In All Years (EASSQH)                             | Cumulative Gpa Across All Years (EAOGPAC)  |
|                          |                 | 2nd year of high school course taking (ELYEAR2)                           | Science Level With Credit Year 1 (EASSQB1)                                    | Math Failure Index Year 1 (EAMFIX1)  |
|                          |                 | 3rd year of high school course taking (ELYEAR3)                           | Science Level With Credit Year 2 (EASSQB2)                                    | Math Failure Index Year 2 (EAMFIX2)  |
|                          |                 | 4th year of high school course taking (ELYEAR4)                           | Science Level With Credit Year 3 (EASSQB3)                                    | Math Failure Index Year 3 (EAMFIX3)  |
|                          |                 | Math Sequence Level Year 1 (EAMSQ1)                                       | Science Level With Credit Year 4 (EASSQB4)                                    | Math Failure Index Year 4 (EAMFIX4)  |
|                          |                 | Math Sequence Level Year 2 (EAMSQ2)                                       | Highest Science Level (Credit) All Years (EASSQBH)                            | Math Failure Index Across All Years (EAMFIXC)  |
|                          |                 | Math Sequence Level Year 3 (EAMSQ3)                                       | Math GPA Year1 (EAMGPA1)  | Science Failure Index Year 1 (EASFIX1)   |
|                          |                 | Math Sequence Level Year 4 (EAMSQ4)                                       | Math GPA Year2 (EAMGPA2)  | Science Failure Index Year 2 (EASFIX2)   |
|                          |                 |   | Math GPA Year3 (EAMGPA3)  | Science Failure Index Year 3 (EASFIX3)   |
|                          |                 |   | Cumulative Math GPA Across All Years (EAMGPAC)                                | Science Failure Index Across All Years (EASFIXC)   |
|                          |                 |   | Highest Math Level Taken In All Years (EAMSQH )                               | Overall Failure Index Year 1 (EAOFIX1)   |
|                          |                 |   | Math Level With Credit Year 1 (EAMSQB1)                                       | Overall Failure Index Year 2 (EAOFIX2)   |
|                          |                 |   | Math Level with Credit Year 2 (EAMSQB2)                                       | Overall Failure Index Year 3 (EAOFIX3)   |
|                          |                 |   | Math Level With Credit Year 3 (EAMSQB3)                                       | Overall Failure Index Year 4 (EAOFIX4)   |
|                          |                 |   | Math Level With Credit Year 4 (EAMSQB4)                                       | Overall Failure Index Across All Years (EAOFIXC)   |
|                          |                 |   | Highest Math Level (Credit) All Years (EAMSQBH)                               |  |
|                          |                 |   | Science Sequence Level Year1 (EASSQ1)   |  |
|                          |                 |   | Science Sequence Level Year2 (EASSQ2)   |  |
|                          |                 |   | Science Sequence Level Year3 (EASSQ3)   |  |
|                          |                 |   | Science Sequence Level Year4 (EASSQ4)   |  |
| Dataset 17 – Graduation  | 3               | High School Exit Status (EREXITST)  | High School Graduation Month (ERGRADM)  | High School Graduation Year (ERGRADY)  |
| Dataset 8 – Demographics | 52              | In general, how is your health? (H3GH1)<br>How many times go for exercise | Were the past seven days typical in terms of your physical activity? (H3DA16) | What are you currently doing about your weight? (H3GH3)<br>In the past 7 days, have you been |

|  |  |   |  |
|--|--|---|--|
|  | <p>center in the past 7 days? (H3GH5)</p> <p>Have you been told by a doctor that you have an eating disorder? (H3GH8)</p> <p>What time (<i>minutes</i>) do you usually wake up on working days? (H3GH11M)</p> <p>What time do you usually go to sleep the night (or day) before? <i>Minutes</i> (H3GH12M)</p> <p>On days you don't have to get up at a certain time, what time usually get up? <i>Minutes</i> (H3GH13M)</p> <p>On days you don't have to get up at a certain time, what time do you usually sleep? <i>Minutes</i> (H3GH14M)</p> <p>In the past seven days, how often did you take a nap? (H3GH16)</p> <p>How many of the past seven days did you eat breakfast? (H3GH19)</p> <p>During any part of {2000 / 2001} did you receive income from wages or salaries, including tips, bonuses, and overtime pay, and income from self-employment (H3EC1A)</p> <p>During any part of {2000 / 2001} did you receive income from AFDC (Aid to Families with Dependent Children ), public assistance, welfare, or a state TANF program? (H3EC1D)</p> <p>During any part of {2000 / 2001} did you receive income from child support or alimony? (H3EC1G)</p> <p>In the past seven days, how many times did you do housework? (H3DA1)</p> <p>On the average, how many hours a week do you spend watching videos? (H3DA4)</p> <p>On the average, how many hours a week do you spend watching television? (H3DA7)</p> <p>In the past seven days, how many times did you participate in strenuous team sports such as football, soccer, basketball, lacrosse, rugby, field hockey, or ice hockey? (H3DA10)</p> <p>In the past seven days, how many times did you play golf, go fishing or bowling, or play softball or baseball? (H3DA13)</p> | <p>What do you think of your weight? (H3GH2)</p> <p>In the past 7 days, have you eaten much and felt embarrassed? (H3GH6)</p> <p>In the past month, how often did health problems cause you to miss a day of school or work? (H3GH10)</p> <p>What time (<i>AM / PM</i>) do you usually wake up on working days? (H3GH11T)</p> <p>What time do you usually go to sleep the night (or day) before? <i>AM / PM</i> (H3GH12T)</p> <p>On days you don't have to get up at a certain time, what time usually get up? <i>AM / PM</i> (H3GH13T)</p> <p>On days you don't have to get up at a certain time, what time do you usually sleep? <i>AM / PM</i> (H3GH14T)</p> <p>Are you a vegetarian? (H3GH17)</p> <p>In the last month, have you taken any vitamins or minerals? (H3GH20)</p> <p>During any part of {2000 / 2001} did you receive income from interests or dividends? (H3EC1B)</p> <p>During any part of {2000 / 2001} did you receive income from housing assistance? (H3EC1E)</p> <p>During any part of {2000 / 2001} did you receive income from family and friends? (H3EC1H)</p> <p>In the past seven days, how many times did you engage in a hobby such as working on a collection, playing cards or board games, arts and crafts, drama, playing a musical instrument or singing with a group, or shopping just for fun? (H3DA2)</p> <p>On the average, how many hours a week do you spend playing video or computer games, or using a computer for something other than schoolwork? (H3DA5)</p> <p>In the past seven days, how many times did you bicycle, skateboard, dance, hike, hunt, or do yard work? (H3DA8)</p> <p>In the past seven days, how many times did you participate in individual sports such as running, wrestling, swimming, cross country skiing, cycle racing, or martial arts? (H3DA11)</p> <p>In the past seven days, how many times did you walk for exercise? (H3DA14)</p> | <p>afraid to start eating because you are unable to stop? (H3GH7)</p> <p>What time (<i>hour</i>) do you usually wake up on working days? (H3GH11H)</p> <p>What time do you usually go to sleep the night (or day) before? <i>Hour</i> (H3GH12H)</p> <p>On days you don't have to get up at a certain time, what time usually get up? <i>Hour</i> (H3GH13H)</p> <p>On days you don't have to get up at a certain time, what time do you usually sleep? <i>Hour</i> (H3GH14H)</p> <p>In the past seven days, how often did you fall asleep when you should have been awake? (H3GH15)</p> <p>In the past seven days, how many days did you eat from a fast-food place? (H3GH18)</p> <p>During any part of {2000 / 2001} did you receive income from food stamps? (H3EC1C)</p> <p>During any part of {2000 / 2001} did you receive income from unemployment insurance, workmen's compensation, disability, or social security benefits, including SSI (supplemental security income)? (H3EC1F)</p> <p>Including all the income sources you reported above, what was your total personal income before taxes in {2000 / 2001}? (H3EC2)</p> <p>In the past seven days, how many times did you watched a movie, played video or computer games, or used a computer for surfing the Web, exchanging email, or participating in a chat room? (H3DA3)</p> <p>In the past seven days, how many times did you watch television? (H3DA6)</p> <p>In the past seven days, how many times did your rollerblade, roller skate, downhill ski, snowboard, play racquet sports, or do aerobics? (H3DA9)</p> <p>In the past seven days, how many times did you participate in gymnastics, weightlifting, or strength training? (H3DA12)</p> <p>In the past seven days, how many times did you just hang out with friends, or talk on the telephone for more than five minutes? (H3DA15)</p> |
|--|--|---|--|

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

**Analysis**

We have used bivariate analysis (Pearson correlation), which is an analysis method in SPSS to explore whether there is a relationship between the independent variables accordingly which are general health and diet, economics and personal future and daily activities with the dependent variable – academic performance. The indicator for the Pearson correlation coefficient is referred to as the r-value and we will also have to investigate the significance at the two-tailed test. By default, SPSS marks statistical significance at the alpha = 0.05 and alpha = 0.01 levels. Any alpha value above that is statistically nonsignificant towards our null hypothesis and therefore we will reject the null hypothesis and accept the alternative hypothesis. For the Pearson correlation coefficient, the value r ranges from -1 to 1 where -1 describes a perfect negative correlation whereas a 1 indicates a perfect positive correlation between two variables. The higher the r value, the stronger the indication of the relationship between the two variables.

**RESULTS AND DISCUSSIONS**

Based on Table 2, we have rejected Hypothesis 1 as there is no significance between H3GH3 and the level of GPA since it shows no relationship with the level of GPA. Furthermore, we can determine the independent variables that end with the letter ‘M’ that defines the minutes towards the sleeping habits. Variables such as H3GH11M, H3GH12M, H3GH13M, and H3GH14M have not shown significant correlation between dependent variables. However, there is a significant relationship between the current H3GH1 level and the GPA level, as shown in the table, and this implies that general health is important to achieve good grades. There is also an interesting finding and pattern in which H3GH8, H3GH18, and H3GH20, which are variables associated with diet and food intake, have also shown a significant relationship between GPA levels. Thus, we assume that diet is significantly associated with the level of GPA. Similar results (Reuter, Forster and Brister, 2021) have conducted research on the influence of eating habits on academic performance on a group of 577 university students and have concluded that breakfast consumption had a positive effect on self-reported GPA, while fast food consumption had a negative effect.

**Table 2: Variables with a significant relationship between general health and the level of GPA.**

| General health |     | GPA Level |          |          |          |          |          |          |          |          |          |          |          |          |
|----------------|-----|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                |     | EAMGPA 1  | EAMGPA 2 | EAMGPA 2 | EAMGPA C | EASGPA 1 | EASGPA 2 | EASGPA 3 | EASGPA C | EAOGPA 1 | EAOGPA 2 | EAOGPA 3 | EAOGPA 4 | EAOGPA C |
| H3GH1          | PC  | -0.084**  | -0.081** | -0.076** | -0.092** | -0.088** | -0.082** | -0.057** | -0.094** | -0.12**  | -0.118** | -0.094** | -0.089** | -0.116** |
|                | S2T | 0.000     | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.002    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3GH2          | PC  | -0.041*   | -0.037*  | -0.029   | -0.044*  | -0.04*   | -0.005   | -0.014   | -0.025   | -0.042*  | -0.013   | -0.011   | -0.005   | -0.024   |
|                | S2T | 0.025     | 0.041    | 0.116    | 0.015    | 0.026    | 0.794    | 0.45     | 0.173    | 0.022    | 0.472    | 0.54     | 0.797    | 0.189    |
| H3GH3          | PC  | 0.035     | 0.023    | 0.022    | 0.026    | 0.006    | 0.014    | 0.000    | 0.000    | 0.01     | -0.002   | -0.004   | -0.022   | -0.001   |
|                | S2T | 0.055     | 0.216    | 0.237    | 0.153    | 0.734    | 0.44     | 0.983    | 0.995    | 0.576    | 0.896    | 0.835    | 0.233    | 0.94     |
| H3GH5          | PC  | 0.036     | 0.028    | 0.03     | 0.039*   | 0.059**  | 0.022    | 0.026    | 0.047**  | 0.058**  | 0.059**  | 0.064**  | 0.053**  | 0.067**  |
|                | S2T | 0.051     | 0.12     | 0.103    | 0.034    | 0.001    | 0.225    | 0.152    | 0.009    | 0.002    | 0.001    | 0.000    | 0.004    | 0.000    |
| H3GH6          | PC  | -0.009    | 0.000    | 0.008    | 0.003    | -0.024   | 0.015    | 0.011    | 0.007    | -0.029   | 0.002    | 0.004    | -0.007   | -0.011   |
|                | S2T | 0.636     | 0.995    | 0.665    | 0.859    | 0.191    | 0.397    | 0.547    | 0.718    | 0.117    | 0.929    | 0.847    | 0.713    | 0.553    |
| H3GH7          | PC  | 0.005     | 0.008    | 0.026    | 0.014    | 0.000    | 0.022    | 0.036*   | 0.025    | 0.019    | 0.029    | 0.034    | 0.009    | 0.025    |
|                | S2T | 0.776     | 0.655    | 0.147    | 0.437    | 0.989    | 0.229    | 0.047    | 0.176    | 0.296    | 0.111    | 0.061    | 0.618    | 0.179    |
| H3GH8          | PC  | 0.044*    | 0.058**  | 0.042*   | 0.061**  | 0.048**  | 0.043*   | 0.033    | 0.056**  | 0.05**   | 0.061**  | 0.055**  | 0.052**  | 0.062**  |
|                | S2T | 0.017     | 0.001    | 0.021    | 0.001    | 0.008    | 0.019    | 0.074    | 0.002    | 0.006    | 0.001    | 0.003    | 0.004    | 0.001    |
| H3GH10         | PC  | -0.016    | -0.011   | -0.004   | -0.012   | -0.014   | 0.005    | -0.024   | -0.01    | 0.001    | -0.003   | 0.013    | 0.001    | 0.004    |



|        |         |          |          |          |          |          |          |          |          |          |          |          |          |          |
|--------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|        | S2<br>T | 0.392    | 0.536    | 0.811    | 0.514    | 0.428    | 0.772    | 0.186    | 0.573    | 0.961    | 0.874    | 0.49     | 0.937    | 0.822    |
| H3GH11 | PC      | -0.006   | 0.032    | 0.015    | 0.012    | 0.025    | -0.002   | 0.004    | 0.011    | 0.014    | 0.029    | 0.009    | 0.002    | 0.016    |
| H      | S2<br>T | 0.731    | 0.077    | 0.413    | 0.508    | 0.175    | 0.931    | 0.842    | 0.556    | 0.447    | 0.108    | 0.64     | 0.902    | 0.368    |
| H3GH11 | PC      | 0.049**  | 0.019    | 0.011    | 0.029    | 0.034    | 0.025    | 0.031    | 0.041*   | 0.047**  | 0.037*   | 0.034    | 0.041*   | 0.042*   |
| M      | S2<br>T | 0.007    | 0.31     | 0.534    | 0.115    | 0.066    | 0.164    | 0.092    | 0.024    | 0.01     | 0.045    | 0.059    | 0.023    | 0.02     |
| H3GH11 | PC      | -0.088** | -0.056** | -0.061** | -0.073** | -0.071** | -0.056** | -0.025   | -0.069** | -0.089** | -0.076** | -0.074** | -0.075** | -0.088** |
| T      | S2<br>T | 0.000    | 0.002    | 0.001    | 0.000    | 0.000    | 0.002    | 0.165    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3GH12 | PC      | 0.027    | 0.025    | 0.041*   | 0.036*   | 0.018    | 0.012    | -0.002   | 0.02     | 0.017    | 0.018    | 0.02     | 0.036*   | 0.023    |
| H      | S2<br>T | 0.143    | 0.172    | 0.025    | 0.046    | 0.313    | 0.503    | 0.918    | 0.264    | 0.365    | 0.322    | 0.27     | 0.046    | 0.197    |
| H3GH12 | PC      | -0.006   | 0.015    | 0.008    | 0.021    | 0.002    | 0.001    | -0.002   | 0.003    | -0.002   | 0.012    | 0.003    | 0.028    | 0.011    |
| M      | S2<br>T | 0.726    | 0.426    | 0.668    | 0.247    | 0.905    | 0.964    | 0.895    | 0.864    | 0.892    | 0.512    | 0.867    | 0.13     | 0.536    |
| H3GH12 | PC      | -0.016   | -0.039*  | 0.008    | -0.014   | -0.026   | -0.028   | -0.018   | -0.032   | -0.025   | -0.027   | -0.011   | -0.001   | -0.019   |
| T      | S2<br>T | 0.373    | 0.031    | 0.645    | 0.454    | 0.146    | 0.131    | 0.328    | 0.075    | 0.176    | 0.138    | 0.554    | 0.977    | 0.293    |
| H3GH13 | PC      | 0.04*    | 0.051**  | 0.053**  | 0.051**  | 0.041*   | 0.043*   | 0.016    | 0.043*   | 0.042*   | 0.042*   | 0.052**  | 0.057**  | 0.054**  |
| H      | S2<br>T | 0.026    | 0.006    | 0.004    | 0.005    | 0.024    | 0.017    | 0.385    | 0.019    | 0.021    | 0.021    | 0.004    | 0.002    | 0.003    |
| H3GH13 | PC      | 0.018    | 0.031    | 0.04*    | 0.034    | 0.029    | 0.022    | 0.026    | 0.032    | 0.028    | 0.036    | 0.037*   | 0.042*   | 0.039*   |
| M      | S2<br>T | 0.311    | 0.086    | 0.03     | 0.059    | 0.117    | 0.233    | 0.153    | 0.076    | 0.129    | 0.051    | 0.044    | 0.022    | 0.034    |
| H3GH13 | PC      | -0.057** | -0.058** | -0.064** | -0.079** | -0.041*  | -0.064** | -0.035   | -0.061** | -0.066** | -0.076** | -0.073** | -0.109** | -0.088** |
| T      | S2<br>T | 0.002    | 0.001    | 0.000    | 0.000    | 0.026    | 0.000    | 0.052    | 0.001    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3GH14 | PC      | -0.011   | -0.023   | 0.005    | 0.002    | -0.03    | 0.019    | -0.016   | -0.008   | -0.017   | 0.001    | 0.006    | 0.016    | 0.003    |
| H      | S2<br>T | 0.564    | 0.197    | 0.789    | 0.909    | 0.099    | 0.292    | 0.37     | 0.654    | 0.363    | 0.948    | 0.729    | 0.369    | 0.887    |
| H3GH14 | PC      | -0.008   | 0.027    | -0.01    | 0.013    | 0.01     | 0.015    | -0.001   | 0.01     | -0.015   | 0.007    | -0.003   | -0.003   | -0.004   |
| M      | S2<br>T | 0.659    | 0.134    | 0.596    | 0.474    | 0.591    | 0.412    | 0.951    | 0.578    | 0.424    | 0.696    | 0.874    | 0.864    | 0.807    |
| H3GH14 | PC      | -0.034   | -0.054** | -0.028   | -0.036   | -0.052** | -0.026   | -0.026   | -0.046** | -0.052** | -0.042*  | -0.019   | -0.011   | -0.035   |
| T      | S2<br>T | 0.065    | 0.003    | 0.128    | 0.05     | 0.004    | 0.15     | 0.154    | 0.011    | 0.005    | 0.023    | 0.293    | 0.532    | 0.058    |
| H3GH15 | PC      | -0.016   | -0.031   | -0.047** | -0.034   | -0.008   | -0.029   | -0.03    | -0.031   | -0.031   | -0.045*  | -0.059** | -0.058** | -0.051** |
| H      | S2<br>T | 0.374    | 0.088    | 0.01     | 0.058    | 0.665    | 0.114    | 0.096    | 0.091    | 0.085    | 0.013    | 0.001    | 0.002    | 0.005    |
| H3GH16 | PC      | -0.006   | 0.001    | -0.001   | 0.002    | -0.008   | -0.008   | -0.021   | -0.018   | -0.009   | 0.000    | 0.005    | -0.013   | -0.004   |
| H      | S2<br>T | 0.749    | 0.941    | 0.967    | 0.901    | 0.648    | 0.675    | 0.25     | 0.322    | 0.627    | 0.989    | 0.779    | 0.473    | 0.828    |
| H3GH17 | PC      | -0.016   | 0.000    | 0.02     | 0.006    | 0.000    | 0.03     | 0.025    | 0.027    | 0.006    | 0.024    | 0.025    | 0.037*   | 0.025    |
| H      | S2<br>T | 0.383    | 0.989    | 0.265    | 0.763    | 0.999    | 0.096    | 0.173    | 0.143    | 0.758    | 0.187    | 0.167    | 0.04     | 0.173    |
| H3GH18 | PC      | -0.125** | -0.141** | -0.114** | -0.142** | -0.099** | -0.131** | -0.119** | -0.149** | -0.147** | -0.166** | -0.152** | -0.143** | -0.17**  |
| H      | S2<br>T | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3GH19 | PC      | 0.136**  | 0.159**  | 0.123**  | 0.171**  | 0.13**   | 0.136**  | 0.101**  | 0.144**  | 0.149**  | 0.158**  | 0.143**  | 0.14**   | 0.165**  |
| H      | S2<br>T | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3GH20 | PC      | 0.072**  | 0.046*   | 0.044*   | 0.073**  | 0.069**  | 0.087**  | 0.039*   | 0.09**   | 0.091**  | 0.095**  | 0.071**  | 0.089**  | 0.098**  |
| H      | S2<br>T | 0.000    | 0.011    | 0.017    | 0.000    | 0.000    | 0.000    | 0.033    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |

\*PC = Pearson's correlation, S2T = Sig. (2-tailed)

Based on Table 3, we have rejected Hypothesis 2 in which there is non-significance between the variables H3GH7, H3GH8 as well as H3GH10 which shows no significant relationship between failure rates. We have also identified that the variables H3GH14H, M and T which ask the respondents what time do they sleep where they do not have to get up at a certain time have shown no relationship at all with subject failure rates. We can determine that H3GH18 has the highest significance between failures, except for showing no relationship with EAMFIX4. This may be due to a low number of

responses as well as mostly invalid responses during data collection. However, most of the health-related variables have shown only little or no significance with the subject failure rate, and therefore it proves that the way young adults manage physical health has little to no relationship with academic failures. However, Bantjes et al. (2021) have conducted research on mental health and academic failure among university students, and one of the findings shows that there are significant associations between mental health and academic performance. This may prove that mental health plays a much more important role in determining academic success compared to physical health.

**Table 3: Variables with significant relationship between general health and failure rate.**

| General health | Failure rate |          |          |          |          |          |          |          |          |          |          |          |          |          |        |
|----------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
|                | EAMFIX 1     | EAMFIX 2 | EAMFIX 3 | EAMFIX 4 | EAMFIX C | EASFIX 1 | EASFIX 2 | EASFIX 3 | EASFIX C | EAOFIX 1 | EAOFIX 2 | EAOFIX 3 | EAOFIX 4 | EAOFIX C |        |
| H3GH1          | PC           | 0.032    | 0.059**  | 0.038*   | -0.002   | 0.051**  | 0.021    | 0.026    | 0.007    | 0.034    | 0.081**  | 0.089**  | 0.052**  | 0.038*   | 0.082* |
|                | S2 T         | 0.083    | 0.001    | 0.037    | 0.901    | 0.005    | 0.24     | 0.157    | 0.717    | 0.059    | 0.000    | 0.000    | 0.004    | 0.035    | 0.000  |
| H3GH2          | PC           | 0.029    | 0.044*   | 0.039*   | 0.015    | 0.053**  | 0.036*   | 0.044*   | 0.019    | 0.052**  | 0.048**  | 0.041*   | 0.026    | 0.009    | 0.041* |
|                | S2 T         | 0.114    | 0.015    | 0.031    | 0.411    | 0.004    | 0.05     | 0.016    | 0.306    | 0.004    | 0.009    | 0.023    | 0.146    | 0.636    | 0.023  |
| H3GH3          | PC           | -0.039*  | -0.013   | -0.006   | -0.016   | -0.022   | -0.002   | -0.021   | 0.013    | -0.004   | -0.019   | -0.012   | 0.009    | 0.01     | -0.003 |
|                | S2 T         | 0.033    | 0.477    | 0.722    | 0.375    | 0.218    | 0.929    | 0.253    | 0.463    | 0.809    | 0.302    | 0.505    | 0.638    | 0.58     | 0.877  |
| H3GH5          | PC           | -0.001   | -0.027   | -0.036*  | 0.021    | -0.018   | -0.034   | -0.007   | -0.031   | -0.033   | -0.022   | -0.046*  | -0.053** | -0.032   | 0.053* |
|                | S2 T         | 0.972    | 0.132    | 0.05     | 0.244    | 0.312    | 0.061    | 0.693    | 0.084    | 0.072    | 0.218    | 0.012    | 0.004    | 0.083    | 0.003  |
| H3GH6          | PC           | 0.006    | -0.011   | -0.013   | -0.029   | -0.018   | 0.032    | -0.015   | 0.003    | 0.008    | 0.045*   | -0.011   | -0.022   | -0.011   | 0.006  |
|                | S2 T         | 0.733    | 0.554    | 0.476    | 0.113    | 0.332    | 0.081    | 0.418    | 0.853    | 0.659    | 0.014    | 0.534    | 0.234    | 0.53     | 0.741  |
| H3GH7          | PC           | -0.007   | -0.016   | -0.008   | -0.015   | -0.02    | 0.011    | -0.019   | -0.021   | -0.019   | 0.005    | -0.02    | -0.022   | -0.024   | -0.017 |
|                | S2 T         | 0.708    | 0.379    | 0.647    | 0.399    | 0.278    | 0.556    | 0.291    | 0.248    | 0.302    | 0.792    | 0.271    | 0.217    | 0.194    | 0.354  |
| H3GH8          | PC           | -0.004   | -0.018   | 0.004    | 0.000    | -0.013   | -0.017   | -0.006   | -0.025   | -0.031   | -0.018   | -0.015   | -0.019   | -0.019   | -0.025 |
|                | S2 T         | 0.833    | 0.332    | 0.819    | 0.988    | 0.488    | 0.363    | 0.744    | 0.165    | 0.089    | 0.337    | 0.4      | 0.301    | 0.293    | 0.164  |
| H3GH10         | PC           | 0.008    | 0.013    | -0.004   | 0.017    | 0.015    | 0.019    | 0.001    | 0.027    | 0.016    | 0.002    | 0.019    | -0.017   | -0.008   | 0.001  |
|                | S2 T         | 0.662    | 0.469    | 0.847    | 0.349    | 0.413    | 0.285    | 0.965    | 0.132    | 0.387    | 0.918    | 0.3      | 0.356    | 0.643    | 0.971  |
| H3GH11 H       | PC           | 0.024    | -0.015   | 0.003    | -0.01    | 0.007    | 0.005    | -0.007   | 0.02     | 0.019    | 0.017    | -0.019   | 0.022    | -0.025   | -0.002 |
|                | S2 T         | 0.186    | 0.413    | 0.881    | 0.577    | 0.706    | 0.792    | 0.712    | 0.267    | 0.287    | 0.358    | 0.292    | 0.228    | 0.175    | 0.911  |
| H3GH11 M       | PC           | -0.055** | -0.026   | -0.006   | -0.01    | -0.041*  | -0.027   | -0.017   | -0.031   | -0.049** | -0.063** | -0.037*  | -0.034   | 0.001    | 0.046* |
|                | S2 T         | 0.003    | 0.151    | 0.73     | 0.6      | 0.026    | 0.132    | 0.359    | 0.086    | 0.007    | 0.001    | 0.04     | 0.061    | 0.968    | 0.012  |
| H3GH11 T       | PC           | 0.056**  | 0.021    | 0.051**  | 0.014    | 0.056**  | 0.023    | 0.017    | 0.012    | 0.027    | 0.049**  | 0.035    | 0.045*   | 0.048**  | 0.063* |
|                | S2 T         | 0.002    | 0.253    | 0.005    | 0.438    | 0.002    | 0.211    | 0.344    | 0.524    | 0.14     | 0.008    | 0.058    | 0.014    | 0.008    | 0.001  |
| H3GH12 H       | PC           | -0.016   | -0.001   | -0.025   | -0.017   | -0.018   | -0.01    | -0.027   | -0.026   | -0.051** | -0.024   | -0.018   | -0.025   | -0.018   | -0.026 |
|                | S2 T         | 0.38     | 0.943    | 0.177    | 0.34     | 0.335    | 0.601    | 0.139    | 0.158    | 0.005    | 0.192    | 0.315    | 0.17     | 0.31     | 0.147  |
| H3GH12 M       | PC           | 0.015    | 0.007    | -0.011   | -0.018   | -0.011   | 0.04*    | 0.014    | 0.003    | 0.019    | 0.042*   | 0.012    | 0.007    | 0.004    | 0.021  |
|                | S2 T         | 0.418    | 0.696    | 0.533    | 0.323    | 0.539    | 0.028    | 0.429    | 0.865    | 0.299    | 0.022    | 0.513    | 0.716    | 0.806    | 0.259  |
| H3GH12 T       | PC           | 0.000    | 0.04*    | 0.004    | -0.024   | 0.011    | 0.007    | 0.014    | -0.002   | -0.001   | -0.002   | 0.021    | 0.002    | 0.001    | 0.009  |
|                | S2 T         | 0.993    | 0.027    | 0.84     | 0.182    | 0.532    | 0.713    | 0.444    | 0.898    | 0.976    | 0.924    | 0.259    | 0.898    | 0.977    | 0.625  |
| H3GH13 H       | PC           | -0.032   | -0.042*  | -0.057** | 0.011    | -0.053** | -0.027   | -0.026   | -0.011   | -0.029   | -0.021   | -0.023   | -0.064** | -0.014   | 0.047* |
|                | S2 T         | 0.079    | 0.021    | 0.002    | 0.54     | 0.004    | 0.137    | 0.155    | 0.538    | 0.117    | 0.256    | 0.201    | 0.000    | 0.452    | 0.01   |

|             |         |         |          |         |         |          |         |         |         |         |         |          |          |         |        |
|-------------|---------|---------|----------|---------|---------|----------|---------|---------|---------|---------|---------|----------|----------|---------|--------|
| H3GH13<br>M | PC      | -0.026  | -0.021   | -0.028  | -0.021  | -0.038*  | -0.013  | 0.003   | -0.008  | -0.018  | -0.019  | -0.026   | -0.031   | -0.009  | -0.024 |
|             | S2<br>T | 0.157   | 0.257    | 0.124   | 0.259   | 0.039    | 0.476   | 0.857   | 0.668   | 0.32    | 0.302   | 0.153    | 0.084    | 0.606   | 0.192  |
| H3GH13<br>T | PC      | 0.039*  | 0.047*   | 0.047** | 0.049** | 0.076**  | 0.04*   | 0.024   | 0.015   | 0.045*  | 0.04*   | 0.043*   | 0.037*   | 0.081** | 0.068* |
|             | S2<br>T | 0.034   | 0.011    | 0.01    | 0.007   | 0.000    | 0.026   | 0.184   | 0.406   | 0.013   | 0.03    | 0.018    | 0.041    | 0.000   | 0.000  |
| H3GH14<br>H | PC      | -0.008  | 0.017    | 0.000   | -0.022  | 0.002    | 0.004   | -0.011  | 0.01    | 0.001   | -0.002  | 0.005    | -0.005   | 0.005   | 0.001  |
|             | S2<br>T | 0.65    | 0.363    | 0.998   | 0.227   | 0.926    | 0.817   | 0.543   | 0.597   | 0.945   | 0.893   | 0.802    | 0.779    | 0.801   | 0.962  |
| H3GH14<br>M | PC      | 0.033   | -0.029   | 0.001   | -0.004  | -0.003   | 0.014   | 0.009   | 0.014   | 0.007   | 0.026   | -0.014   | 0.019    | 0.007   | 0.017  |
|             | S2<br>T | 0.074   | 0.109    | 0.962   | 0.816   | 0.88     | 0.432   | 0.61    | 0.433   | 0.696   | 0.16    | 0.453    | 0.307    | 0.717   | 0.354  |
| H3GH14<br>T | PC      | 0.016   | 0.021    | 0.016   | 0.007   | 0.023    | 0.02    | 0.009   | 0.017   | 0.027   | 0.028   | 0.016    | 0.027    | 0.03    | 0.034  |
|             | S2<br>T | 0.385   | 0.26     | 0.379   | 0.694   | 0.2      | 0.275   | 0.639   | 0.363   | 0.136   | 0.128   | 0.37     | 0.135    | 0.105   | 0.065  |
| H3GH15      | PC      | 0.021   | 0.003    | 0.017   | 0.02    | 0.013    | -0.018  | 0.019   | 0.015   | 0.02    | 0.05**  | 0.046*   | 0.04*    | 0.056** | 0.05** |
|             | S2<br>T | 0.242   | 0.883    | 0.346   | 0.277   | 0.478    | 0.336   | 0.306   | 0.4     | 0.261   | 0.006   | 0.011    | 0.027    | 0.002   | 0.006  |
| H3GH16      | PC      | 0.026   | 0.000    | -0.01   | -0.032  | -0.002   | 0.04*   | 0.037*  | 0.019   | 0.039*  | 0.043*  | 0.011    | -0.008   | -0.006  | 0.013  |
|             | S2<br>T | 0.152   | 0.984    | 0.59    | 0.083   | 0.909    | 0.027   | 0.044   | 0.298   | 0.034   | 0.017   | 0.535    | 0.662    | 0.734   | 0.461  |
| H3GH17      | PC      | 0.004   | -0.034   | -0.024  | -0.03   | -0.031   | -0.02   | -0.035  | -0.02   | -0.031  | -0.013  | -0.041*  | -0.033   | -0.039* | 0.041* |
|             | S2<br>T | 0.834   | 0.065    | 0.196   | 0.099   | 0.09     | 0.278   | 0.053   | 0.261   | 0.093   | 0.469   | 0.026    | 0.067    | 0.033   | 0.023  |
| H3GH18      | PC      | 0.062** | 0.064**  | 0.083** | 0.023   | 0.093**  | 0.043   | 0.052** | 0.064** | 0.082** | 0.082** | 0.095*   | 0.094**  | 0.066** | 0.114* |
|             | S2<br>T | 0.001   | 0.000    | 0.000   | 0.207   | 0.000    | 0.019   | 0.004   | 0.000   | 0.000   | 0.000   | 0.000    | 0.000    | 0.000   | 0.000  |
| H3GH19      | PC      | -0.028  | -0.078** | -0.035  | -0.039* | -0.069** | -0.035* | -0.039  | -0.021  | -0.035  | -0.047* | -0.061** | -0.054** | -0.047* | 0.066* |
|             | S2<br>T | 0.126   | 0.000    | 0.057   | 0.031   | 0.000    | 0.055   | 0.034   | 0.247   | 0.052   | 0.01    | 0.001    | 0.003    | 0.01    | 0.000  |
| H3GH20      | PC      | -0.003  | -0.004   | -0.026  | -0.021  | -0.02    | -0.014  | -0.024  | -0.034  | -0.038* | -0.026  | -0.038*  | -0.038*  | 0.062** | 0.058* |
|             | S2<br>T | 0.867   | 0.816    | 0.149   | 0.241   | 0.277    | 0.446   | 0.19    | 0.062   | 0.039   | 0.156   | 0.036    | 0.037    | 0.001   | 0.002  |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

Based on Table 4, we have rejected Hypothesis 3 as there are non-significant variables such as H3GH8 and H3GH17 that show no significant relationship with the subjects taken. The variable that has a strong significance with subjects taken is H3GH18 except for EASSQ1 and EASSQB1 that show no significant relationship with academic performance. This may be due to personal preference on selecting subjects, as both of these variables indicate science taken during year 1. There is an interesting pattern with variables ending with ‘T’ (H3GH12T – H3GH14T) which are the sleeping behaviors of the respondents exclude H3GH11T, in which these variables have a strong correlation with all the years of courses taken (ELYEAR1 – ELYEAR4). Furthermore, the variables ending with ‘T’ excluding H3GHT11 have also shown that there is a significant relationship with the level of math sequence of year 1 to 4 (EAMSQ1 – EAMSQ4) and EAMSQH compared to the level of science sequence from year 1 to 4 which only part of the variables have significance for the subject taken.

**Table 4: Variables with significant relationship between general health and subjects taken.**

| General health |         | Subjects taken |             |             |             |             |             |            |            |            |             |             |             |             |             |            |             |             |             |             |             |             |             |             |             |
|----------------|---------|----------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                |         | ELYEA<br>R1    | ELYEA<br>R2 | ELYEA<br>R3 | ELYEA<br>R4 | EAMS<br>Q1  | EAMS<br>Q2  | EAMS<br>Q3 | EAMS<br>Q4 | EAMS<br>QH | EAMSQ<br>B1 | EAMSQ<br>B2 | EAMSQ<br>B3 | EAMSQ<br>B4 | EAMSQ<br>BH | EASS<br>Q1 | EASS<br>Q2  | EASS<br>Q3  | EASS<br>Q4  | EASS<br>QH  | EASSQ<br>B1 | EASSQ<br>B2 | EASSQ<br>B3 | EASSQ<br>B4 | EASSQ<br>BH |
| H3GH1          | PC      | -0.005         | -0.005      | -0.005      | -0.005      | 0.046<br>** | 0.078<br>** | 0.08**     | 0.06**     | 0.079*     | 0.045**     | 0.083**     | 0.077**     | 0.063**     | 0.081**     | 0.033      | 0.061<br>** | 0.103<br>** | 0.065<br>** | 0.092<br>** | 0.037*      | 0.065*<br>* | 0.103*<br>* | 0.067*<br>* | 0.096*<br>* |
|                | S2<br>T | 0.786          | 0.786       | 0.786       | 0.786       | 0.011       | 0.000       | 0.000      | 0.001      | 0.000      | 0.013       | 0.000       | 0.000       | 0.001       | 0.000       | 0.067      | 0.001       | 0.000       | 0.000       | 0.000       | 0.045       | 0.000       | 0.000       | 0.000       | 0.000       |



|            |     |        |        |        |        |         |         |         |         |        |         |         |         |         |         |        |         |         |         |         |        |        |        |        |         |
|------------|-----|--------|--------|--------|--------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|--------|--------|--------|--------|---------|
| H3GH1<br>6 | PC  | 0.102* | 0.102* | 0.102* | 0.102* | 0.031   | 0.016   | 0.027   | 0.028   | 0.018  | 0.009   | 0.013   | 0.019   | 0.021   | 0.015   | 0.027  | 0.031   | 0.04*   | 0.038*  | 0.043*  | 0.017  | 0.012  | 0.027  | 0.041* | 0.041*  |
|            | S2T | 0.000  | 0.000  | 0.000  | 0.000  | 0.09    | 0.375   | 0.132   | 0.128   | 0.32   | 0.634   | 0.479   | 0.308   | 0.239   | 0.424   | 0.133  | 0.084   | 0.029   | 0.036   | 0.018   | 0.343  | 0.519  | 0.135  | 0.026  | 0.025   |
| H3GH1<br>7 | PC  | 0.011  | 0.011  | 0.011  | 0.011  | -0.001  | -0.005  | 0.005   | 0.008   | 0.003  | -0.008  | 0.005   | 0.018   | 0.019   | 0.008   | -0.01  | 0.002   | 0.007   | 0.003   | 0.001   | -0.005 | 0.01   | 0.01   | -0.001 | -0.004  |
|            | S2T | 0.547  | 0.547  | 0.547  | 0.547  | 0.964   | 0.768   | 0.769   | 0.672   | 0.889  | 0.664   | 0.784   | 0.313   | 0.302   | 0.66    | 0.568  | 0.922   | 0.719   | 0.876   | 0.94    | 0.765  | 0.577  | 0.589  | 0.959  | 0.838   |
| H3GH1<br>8 | PC  | 0.052* | 0.052* | 0.052* | 0.052* | 0.07**  | 0.098** | 0.112** | 0.121** | 0.146* | 0.078** | 0.106** | 0.127** | -0.12** | 0.142** | 0.032  | 0.064** | 0.067** | 0.096** | 0.117** | -0.032 | 0.071* | 0.085* | -0.1** | -0.12** |
|            | S2T | 0.004  | 0.004  | 0.004  | 0.004  | 0.000   | 0.000   | 0.000   | 0.000   | 0.000  | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.077  | 0.000   | 0.000   | 0.000   | 0.000   | 0.079  | 0.000  | 0.000  | 0.000  | 0.000   |
| H3GH1<br>9 | PC  | -0.003 | -0.003 | -0.003 | -0.003 | 0.081** | 0.095** | 0.096** | 0.079** | 0.106* | 0.07**  | 0.102** | 0.089** | 0.087** | 0.111** | 0.003  | 0.084** | 0.078** | 0.083** | 0.113** | 0.01   | 0.09** | 0.083* | 0.084* | 0.107*  |
|            | S2T | 0.856  | 0.856  | 0.856  | 0.856  | 0.000   | 0.000   | 0.000   | 0.000   | 0.000  | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.876  | 0.000   | 0.000   | 0.000   | 0.000   | 0.598  | 0.000  | 0.000  | 0.000  | 0.000   |
| H3GH2<br>0 | PC  | -0.02  | -0.02  | -0.02  | -0.02  | 0.06**  | 0.077** | 0.057** | 0.03    | 0.062* | 0.039*  | 0.057** | 0.063** | 0.039*  | 0.064** | 0.039* | 0.061** | 0.065** | 0.028   | 0.071** | 0.041* | 0.064* | 0.076* | 0.038* | 0.082*  |
|            | S2T | 0.271  | 0.271  | 0.271  | 0.271  | 0.001   | 0.000   | 0.002   | 0.098   | 0.001  | 0.034   | 0.002   | 0.001   | 0.03    | 0.000   | 0.033  | 0.001   | 0.000   | 0.129   | 0.000   | 0.023  | 0.000  | 0.000  | 0.038  | 0.000   |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

Based on Table 5, we have rejected Hypothesis 4 due to the existence of some non-significant results where variables such as H3GH1 have not shown a relationship between the respondent’s graduation status. Most of the findings that prove the significance level are scattered around different variables, excluding H3GH12T and H3GH10, where there is a relationship with ERGRADM and ERGRADY. However, H3GH18 shows a strong significance level with the degree of satisfaction of the respondents. This may be due to an excessive intake of fast food that may lead to obesity that implies bad health management that will affect academics, in this case, the graduate status of the respondents.

**Table 5. Variables with a significant relationship between general health and graduation status.**

| General health |     | Graduation Status |          |
|----------------|-----|-------------------|----------|
|                |     | ERGRADM           | ERGRADY  |
| H3GH1          | PC  | 0.007             | 0.008    |
|                | S2T | 0.719             | 0.664    |
| H3GH2          | PC  | -0.022            | -0.076** |
|                | S2T | 0.226             | 0.000    |
| H3GH3          | PC  | 0.025             | -0.004   |
|                | S2T | 0.164             | 0.808    |
| H3GH5          | PC  | 0.015             | 0.07**   |
|                | S2T | 0.401             | 0.000    |
| H3GH6          | PC  | 0.023             | -0.025   |
|                | S2T | 0.211             | 0.174    |
| H3GH7          | PC  | 0.001             | 0.000    |
|                | S2T | 0.945             | 0.987    |
| H3GH8          | PC  | 0.016             | 0.02     |
|                | S2T | 0.389             | 0.274    |
| H3GH10         | PC  | 0.037*            | 0.048**  |
|                | S2T | 0.041             | 0.009    |
| H3GH11H        | PC  | 0.023             | 0.139**  |
|                | S2T | 0.201             | 0.000    |
| H3GH11M        | PC  | 0.008             | -0.024   |
|                | S2T | 0.677             | 0.195    |
| H3GH11T        | PC  | 0.017             | -0.027   |
|                | S2T | 0.343             | 0.136    |
| H3GH12H        | PC  | 0.01              | -0.113** |
|                | S2T | 0.583             | 0.000    |
| H3GH12M        | PC  | 0.042*            | -0.037*  |
|                | S2T | 0.02              | 0.041    |
| H3GH12T        | PC  | -0.037*           | -0.108** |
|                | S2T | 0.04              | 0.0000   |
| H3GH13H        | PC  | 0.01              | 0.056**  |
|                | S2T | 0.578             | 0.002    |
| H3GH13M        | PC  | 0.018             | -0.016   |
|                | S2T | 0.325             | 0.385    |

|         |     |          |          |
|---------|-----|----------|----------|
| H3GH13T | PC  | 0.006    | 0.122**  |
|         | S2T | 0.751    | 0.000    |
| H3GH14H | PC  | -0.028   | -0.147** |
|         | S2T | 0.119    | 0.000    |
| H3GH14M | PC  | 0.012    | 0.01     |
|         | S2T | 0.509    | 0.588    |
| H3GH14T | PC  | -0.043*  | -0.112** |
|         | S2T | 0.018    | 0.000    |
| H3GH15  | PC  | 0.027    | 0.067**  |
|         | S2T | 0.144    | 0.000    |
| H3GH16  | PC  | 0.001    | 0.1**    |
|         | S2T | 0.947    | 0.000    |
| H3GH17  | PC  | 0.022    | 0.006    |
|         | S2T | 0.221    | 0.733    |
| H3GH18  | PC  | -0.054** | 0.051**  |
|         | S2T | 0.003    | 0.005    |
| H3GH19  | PC  | 0.033    | -0.012   |
|         | S2T | 0.073    | 0.52     |
| H3GH20  | PC  | 0.004    | -0.027   |
|         | S2T | 0.82     | 0.145    |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

Based on Table 6, the analysis results tend to reject hypothesis 5 as in variable H3EC1A, H3EC1D, H3EC1E and H3EC2 are not significant relationship between dependent variables (GPA level). This means that personal economics does not exactly affect the high school student's GPA level. However, the variable with H3EC1B, H3EC1C, H3EC1F, H3EC1H shows that have a strong significant between the dependent variable where the student is strongly relying on the economic support from savings, food stamps, society aid, society benefits, and family or children support. But Banik and Kumar (2019) pointed out that social economic status are the significant factors that affect the GPA level. This study has investigated using simple random sampling methods with a total of 350 questionnaires to give proportionately among undergraduate students in different faculties. Through the investigation, the result showed that students having enough and rich economic support will have greater opportunities to spend on academic purposes which can help them gather more knowledge and improve their GPA level.

**Table 6: Variables with a significant relationship between personal economics and the GPA level.**

| Personal Economics | GPA Level |          |          |          |          |          |          |          |          |          |          |          |          |          |
|--------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                    |           | EAMGPA 1 | EAMGPA 2 | EAMGPA 3 | EAMGPA C | EASGPA 1 | EASGPA 2 | EASGPA 3 | EASGPA C | EAOGPA 1 | EAOGPA 2 | EAOGPA 3 | EAOGPA 4 | EAOGPA C |
|                    | H3EC1A    | PC       | 0.034    | 0.019    | -0.009   | 0.017    | 0.03     | 0.023    | -0.005   | 0.013    | 0.038*   | 0.026    | 0.004    | -0.007   |
|                    | S2T       | 0.062    | 0.304    | 0.640    | 0.343    | 0.099    | 0.211    | 0.803    | 0.462    | 0.035    | 0.152    | 0.835    | 0.694    | 0.292    |
| H3EC1B             | PC        | 0.142**  | 0.150**  | 0.116**  | 0.170**  | 0.160**  | 0.154**  | 0.116**  | 0.178**  | 0.165**  | 0.169**  | 0.147**  | 0.139**  | 0.176**  |
|                    | S2T       | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC1C             | PC        | -0.054** | -0.023   | -0.040*  | -0.047** | -0.060** | -0.084** | -0.035   | -0.079** | -0.082** | -0.085** | -0.081** | -0.079** | -0.091** |
|                    | S2T       | 0.003    | 0.215    | 0.027    | 0.010    | 0.001    | 0.000    | 0.058    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC1D             | PC        | -0.029   | -0.037*  | -0.012   | -0.031   | -0.045*  | -0.042*  | -0.051** | -0.055** | -0.069** | -0.078** | -0.080** | -0.073** | -0.081** |
|                    | S2T       | 0.113    | 0.041    | 0.514    | 0.088    | 0.013    | 0.02     | 0.005    | 0.003    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC1E             | PC        | -0.032   | -0.035   | -0.042*  | -0.04    | -0.031   | -0.027   | -0.019   | -0.033   | -0.045*  | -0.038*  | -0.054** | -0.039*  | -0.050** |
|                    | S2T       | 0.083    | 0.055    | 0.022    | 0.029    | 0.087    | 0.138    | 0.301    | 0.073    | 0.014    | 0.039    | 0.003    | 0.033    | 0.006    |
| H3EC1F             | PC        | -0.066** | -0.061** | -0.059** | -0.067** | -0.036*  | -0.045*  | -0.044** | -0.045*  | -0.078** | -0.070** | -0.073** | -0.066** | -0.079** |
|                    | S2T       | 0.000    | 0.001    | 0.001    | 0.000    | 0.049    | 0.014    | 0.016    | 0.013    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC1G             | PC        | -0.017   | -0.024   | 0.006    | -0.014   | -0.017   | -0.031   | 0.014    | -0.014   | -0.032   | -0.035   | -0.030   | -0.041*  | -0.037*  |
|                    | S2T       | 0.342    | 0.196    | 0.752    | 0.447    | 0.346    | 0.09     | 0.428    | 0.432    | 0.080    | 0.053    | 0.102    | 0.024    | 0.040    |
| H3EC1H             | PC        | 0.120**  | 0.101**  | 0.120**  | 0.132**  | 0.114**  | 0.121**  | 0.106**  | 0.139**  | 0.150**  | 0.138**  | 0.144**  | 0.127**  | 0.157**  |
|                    | S2T       | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |

|       |     |        |        |          |         |         |          |          |          |         |          |          |          |         |
|-------|-----|--------|--------|----------|---------|---------|----------|----------|----------|---------|----------|----------|----------|---------|
| H3EC2 | PC  | -0.023 | -0.022 | -0.054** | -0.040* | -0.040* | -0.058** | -0.055** | -0.064** | -0.043* | -0.058** | -0.090** | -0.082** | -       |
|       | S2T | 0.207  | 0.231  | 0.003    | 0.027   | 0.027   | 0.001    | 0.002    | 0.000    | 0.018   | 0.001    | 0.000    | 0.000    | 0.078** |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

However, in the variable H3EC1B and H31C1H has shown a strong Pearson correlation, which means that the high school student, if without the income resources from the family or friend support, help be make it difficult to focus in their academic. Additionally, if high school students rely on interest or dividends to support their academics, it will be a precarious income and it will be hard for students to focus on their academics.

**Table 7: Variables with a significant relationship between personal economics and the failure rate.**

| Personal Economics | Failure Rate |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|--------------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                    | EAMFIX1      | EAMFIX2  | EAMFIX3  | EAMFIX4  | EAMFIXC  | EASFIX1  | EASFIX2  | EASFIX3  | EASFIXC  | EAOFIX1  | EAOFIX2  | EAOFIX3  | EAOFIX4  | EAOFIXC  |          |
| H3EC1A             | PC           | -0.027   | -0.008   | 0.006    | 0.009    | -0.016   | -0.026   | -0.020   | -0.025   | -0.029   | -0.038*  | -0.017   | -0.019   | -0.010   | -0.029   |
|                    | S2T          | 0.143    | 0.649    | 0.741    | 0.613    | 0.393    | 0.160    | 0.266    | 0.167    | 0.116    | 0.036    | 0.361    | 0.288    | 0.594    | 0.107    |
| H3EC1B             | PC           | -0.074** | -0.064** | -0.064** | -0.065** | -0.111** | -0.079** | -0.085** | -0.051** | -0.104** | -0.093** | -0.098** | -0.090** | -0.081** | -0.128** |
|                    | S2T          | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.005    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC1C             | PC           | 0.029    | 0.028    | 0.005    | -0.021   | 0.020    | 0.017    | 0.050**  | 0.012    | 0.030    | 0.030    | 0.066**  | 0.049**  | 0.053**  | 0.062**  |
|                    | S2T          | 0.111    | 0.125    | 0.775    | 0.257    | 0.272    | 0.358    | 0.006    | 0.519    | 0.100    | 0.100    | 0.000    | 0.008    | 0.004    | 0.001    |
| H3EC1D             | PC           | 0.025    | 0.028    | 0.000    | 0.015    | 0.032    | 0.026    | 0.041*   | 0.067**  | 0.059**  | 0.041*   | 0.073**  | 0.103**  | 0.098**  | 0.100**  |
|                    | S2T          | 0.162    | 0.130    | 0.988    | 0.416    | 0.083    | 0.153    | 0.024    | 0.000    | 0.001    | 0.026    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC1E             | PC           | 0.005    | 0.028    | 0.026    | 0.031    | 0.036    | 0.007    | 0.009    | -0.008   | 0.006    | -0.013   | 0.004    | 0.019    | 0.008    | 0.006    |
|                    | S2T          | 0.764    | 0.128    | 0.150    | 0.093    | 0.051    | 0.698    | 0.610    | 0.646    | 0.761    | 0.490    | 0.825    | 0.294    | 0.654    | 0.726    |
| H3EC1F             | PC           | 0.017    | 0.016    | 0.027    | -0.021   | 0.019    | 0.001    | 0.022    | 0.028    | 0.008    | 0.008    | 0.026    | 0.026    | -0.002   | 0.019    |
|                    | S2T          | 0.358    | 0.371    | 0.136    | 0.254    | 0.308    | 0.937    | 0.238    | 0.123    | 0.651    | 0.654    | 0.147    | 0.160    | 0.927    | 0.299    |
| H3EC1G             | PC           | 0.013    | 0.007    | -0.015   | -0.014   | -0.001   | 0.016    | 0.010    | 0.006    | 0.010    | 0.003    | 0.026    | 0.031    | 0.046*   | 0.030    |
|                    | S2T          | 0.477    | 0.690    | 0.401    | 0.455    | 0.975    | 0.390    | 0.580    | 0.751    | 0.568    | 0.882    | 0.153    | 0.087    | 0.012    | 0.095    |
| H3EC1H             | PC           | -0.043*  | -0.055** | -0.111** | -0.058** | -0.103** | -0.035   | -0.054** | -0.052** | -0.067** | -0.059** | -0.072** | -0.102** | -0.071** | -0.104** |
|                    | S2T          | 0.019    | 0.002    | 0.000    | 0.001    | 0.000    | 0.052    | 0.003    | 0.004    | 0.000    | 0.001    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC2              | PC           | -0.006   | -0.006   | 0.044*   | 0.002    | 0.010    | 0.026    | 0.012    | 0.018    | 0.027    | -0.004   | 0.009    | 0.037*   | 0.034    | 0.030    |
|                    | S2T          | 0.760    | 0.725    | 0.015    | 0.922    | 0.570    | 0.157    | 0.500    | 0.319    | 0.135    | 0.821    | 0.617    | 0.040    | 0.064    | 0.100    |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

Based on the analysis in Table 8, there will be a rejection of hypothesis 8 which has shown that H3EC1A, H3EC1D, H3EC1E, H3EC1F, H3EC1G, H3EC1H, H3EC2 have no significant relationship to the dependent variable (subject taken). However, H3EC1B, H3EC1C, and H31C1H show a strong significant relationship with the dependent variable. Describe that students who cannot choose the subject they are eager for are due to limited savings, food stamps, and family or friend support to pay for expenses. According to Sota and Agi (2020), economic status has indicated that economic status has a major factor for high school student selection, which is a strong relationship between personal economic and subject taken. As some subjects are inherently expensive to study for the personal economy, it will be difficult to afford and focus on study, because they must find financial sources to cover the cost of their subject choice.

**Table 8: Variables with significant relationship between personal economics and graduation rate.**

| Personal Economics | Subject Taken |          |          |          |         |         |         |         |         |          |          |          |          |          |          |         |         |         |         |          |          |          |          |          |          |
|--------------------|---------------|----------|----------|----------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
|                    | ELYEAR 1      | ELYEAR 2 | ELYEAR 3 | ELYEAR 4 | EAMSQ 1 | EAMSQ 2 | EAMSQ 3 | EAMSQ 4 | EAMSQ H | EAMSQB 1 | EAMSQB 2 | EAMSQB 3 | EAMSQB 4 | EAMSQB H | EASSQ 1  | EASSQ 2 | EASSQ 3 | EASSQ 4 | EASSQ H | EASSQB 1 | EASSQB 2 | EASSQB 3 | EASSQB 4 | EASSQB H |          |
| H3EC1A             | PC            | -0.023   | -0.023   | -0.023   | -0.023  | 0.017   | 0.046*  | 0.045*  | -0.010  | 0.037*   | 0.039*   | 0.027    | 0.031    | -0.006   | 0.037*   | -0.001  | 0.004   | 0.010   | -0.030  | 0.006    | 0.005    | 0.003    | 0.026    | -0.032   | 0.011    |
|                    | S2T           | 0.199    | 0.199    | 0.199    | 0.199   | 0.355   | 0.011   | 0.013   | 0.579   | 0.042    | 0.031    | 0.140    | 0.091    | 0.757    | 0.041    | 0.964   | 0.813   | 0.585   | 0.103   | 0.744    | 0.801    | 0.876    | 0.161    | 0.076    | 0.534    |
| H3EC1B             | PC            | -0.047*  | -0.047*  | -0.047*  | -0.047* | 0.125** | 0.140** | 0.136** | 0.098** | 0.162**  | 0.135**  | 0.135**  | 0.142**  | 0.117**  | 0.165**  | 0.028   | 0.053*  | 0.083*  | 0.112*  | 0.133*   | 0.042*   | 0.074**  | 0.093**  | 0.118**  | 0.135**  |
|                    | S2T           | 0.011    | 0.011    | 0.011    | 0.011   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.124   | 0.004   | 0.000   | 0.000   | 0.000    | 0.021    | 0.000    | 0.000    | 0.000    | 0.000    |
| H3EC1C             | PC            | -0.045*  | -0.045*  | -0.045*  | -0.045* | 0.072** | 0.101** | 0.096** | 0.050** | 0.086**  | -0.078** | -0.079** | -0.081** | -0.039*  | -0.084** | -0.027  | 0.042** | -0.030  | 0.053*  | 0.071*   | -0.022   | -0.054** | -0.038** | -0.050** | -0.079** |
|                    | S2T           | 0.013    | 0.013    | 0.013    | 0.013   | 0.000   | 0.000   | 0.000   | 0.006   | 0.000    | 0.000    | 0.000    | 0.000    | 0.034    | 0.000    | 0.136   | 0.020   | 0.094   | 0.003   | 0.000    | 0.227    | 0.003    | 0.035    | 0.006    | 0.000    |
| H3EC1D             | PC            | -0.033   | -0.033   | -0.033   | -0.033  | 0.104** | 0.108** | 0.116** | 0.053** | 0.115**  | -0.090** | -0.092** | -0.109** | -0.053** | -0.121** | -0.013  | -0.033  | 0.064*  | 0.060*  | 0.070*   | -0.017   | -0.043*  | -0.088** | -0.062** | -0.082** |
|                    | S2T           | 0.073    | 0.073    | 0.073    | 0.073   | 0.000   | 0.000   | 0.000   | 0.004   | 0.000    | 0.000    | 0.000    | 0.000    | 0.004    | 0.000    | 0.472   | 0.069   | 0.000   | 0.001   | 0.000    | 0.365    | 0.019    | 0.000    | 0.001    | 0.000    |

|        |     |          |          |          |          |         |         |         |         |         |         |          |          |         |          |        |        |        |        |         |         |         |         |          |         |         |
|--------|-----|----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|----------|----------|---------|----------|--------|--------|--------|--------|---------|---------|---------|---------|----------|---------|---------|
| H3EC1E | PC  | 0.011    | 0.011    | 0.011    | 0.011    | -0.026  | 0.049** | 0.055** | -0.030  | -0.046* | -0.029  | -0.051** | -0.054** | -0.038* | -0.049** | 0.000  | 0.056* | -0.006 | 0.039* | -0.036* | -0.002  | -0.047* | -0.005  | -0.038*  | -0.036  |         |
|        | S2T | 0.562    | 0.562    | 0.562    | 0.562    | 0.154   | 0.008   | 0.003   | 0.098   | 0.011   | 0.117   | 0.005    | 0.003    | 0.038   | 0.007    | 0.991  | 0.002  | 0.727  | 0.030  | 0.047   | 0.919   | 0.010   | 0.803   | 0.038    | 0.050   |         |
| H3EC1F | PC  | -0.070** | -0.070** | -0.070** | -0.070** | -0.046* | 0.049** | 0.066** | -0.025  | 0.072** | -0.039* | -0.051   | -0.071** | -0.012  | -0.065** | -0.008 | -0.025 | 0.073* | -      | 0.042*  | -0.042* | -0.014  | -0.025  | -0.082** | -0.038* | -0.037* |
|        | S2T | 0.000    | 0.000    | 0.000    | 0.000    | 0.012   | 0.007   | 0.000   | 0.176   | 0.000   | 0.034   | 0.005    | 0.000    | 0.501   | 0.000    | 0.669  | 0.166  | 0.000  | 0.022  | 0.023   | 0.439   | 0.172   | 0.000   | 0.037    | 0.041   |         |
| H3EC1G | PC  | -0.020   | -0.020   | -0.020   | -0.020   | -0.037* | 0.056** | 0.057** | -0.045* | 0.062** | -0.039* | -0.047*  | -0.036*  | -0.036* | -0.055** | -0.007 | -0.024 | 0.045* | -0.015 | -0.043* | -0.014  | -0.019  | -0.035  | -0.009   | -0.044* |         |
|        | S2T | 0.274    | 0.274    | 0.274    | 0.274    | 0.042   | 0.002   | 0.002   | 0.014   | 0.001   | 0.031   | 0.010    | 0.047    | 0.048   | 0.003    | 0.720  | 0.185  | 0.014  | 0.398  | 0.019   | 0.432   | 0.299   | 0.052   | 0.638    | 0.015   |         |
| H3EC1H | PC  | 0.174**  | 0.174**  | 0.174**  | 0.174**  | 0.137** | 0.145** | 0.159** | 0.114** | 0.178** | 0.13**9 | 0.147**  | 0.177**  | 0.120** | 0.184**  | 0.009  | 0.069* | 0.089* | 0.092* | 0.107** | -       | 0.019   | 0.085** | 0.108**  | 0.102** | 0.112** |
|        | S2T | 0.000    | 0.000    | 0.000    | 0.000    | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000    | 0.000    | 0.000   | 0.000    | 0.637  | 0.000  | 0.000  | 0.000  | 0.000   | 0.310   | 0.000   | 0.000   | 0.000    | 0.000   |         |
| H3EC2  | PC  | -0.253** | -0.253** | -0.253** | -0.253** | -0.044* | -0.021  | -0.014  | -0.037* | 0.048** | -0.036* | -0.017   | -0.028   | -0.031  | -0.045*  | 0.007  | -0.020 | 0.051* | -      | 0.036*  | -0.039* | -0.007  | -0.022  | -0.054** | -0.046* | -0.042* |
|        | S2T | 0.000    | 0.000    | 0.000    | 0.000    | 0.016   | 0.241   | 0.439   | 0.041   | 0.008   | 0.046   | 0.349    | 0.129    | 0.085   | 0.014    | 0.690  | 0.262  | 0.005  | 0.048  | 0.031   | 0.686   | 0.235   | 0.003   | 0.011    | 0.021   |         |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

Based on the analysis in Table 9, the hypothesis must be rejected, as it shows that all the variables in the below analysis have no significant relationship between the dependent variable (graduation status), which means that those variables will not affect the graduation status. At the same time, Crisp et al. (2018) have also proven that personal economics status has a strong significant relationship between the graduation status, due to the percentage of students receiving financial aid to support their daily life and the tuition fee during their learning.

**Table 9: Variables with a significant relationship between personal economics and the graduation rate**

| Personal Economics | Graduation Status |         |          |
|--------------------|-------------------|---------|----------|
|                    |                   | ERGRADM | ERGRADY  |
| H3EC1A             | PC                | 0.009   | -0.028   |
|                    | S2T               | 0.622   | 0.128    |
| H3EC1B             | PC                | 0.008   | -0.059** |
|                    | S2T               | 0.667   | 0.001    |
| H3EC1C             | PC                | -0.008  | -0.040*  |
|                    | S2T               | 0.668   | 0.030    |
| H3EC1D             | PC                | 0.003   | -0.017   |
|                    | S2T               | 0.850   | 0.354    |
| H3EC1E             | PC                | 0.013   | 0.021    |
|                    | S2T               | 0.464   | 0.254    |
| H3EC1F             | PC                | -0.017  | -0.069** |
|                    | S2T               | 0.348   | 0.000    |
| H3EC1G             | PC                | 0.030   | -0.010   |
|                    | S2T               | 0.100   | 0.567    |
| H3EC1H             | PC                | 0.027   | 0.170**  |
|                    | S2T               | 0.136   | 0.000    |
| H3EC2              | PC                | -0.017  | -0.251** |
|                    | S2T               | 0.359   | 0.000    |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

Based on Table 10, we have rejected Hypothesis 9 as there are nonsignificant Pearson’s correlation coefficients between the current situation of the variables of H3DA1, H3DA2, H3DA5, H3DA6, H3DA8, H3DA9, H3DA10, H3DA12, H3DA11, H3DA13, H3DA14, H3DA15 and the dependent variables that are the level of GPA as it shows no relationship between these two categories of variables. Therefore, it causes nonsignificant Pearson correlation coefficients to occur between these types of activities and GPA level. However, there is also an interesting finding and pattern where H3DA3, H3DA4, and H3DA7, which are the variables associated with playing computer games and watching television, have also shown a significant relationship between GPA levels. This happens because students may not balance their time well, resulting in them not having enough time to do their review before the exam. Thus, we assume that playing computer games and watching television is significantly associated with the GPA level because students sacrifice their revision time playing computer games and watching television.



**Table 10: Variables with a significant relationship between daily activities and the level of GPA.**

| Daily Activities | GPA Level |         |         |         |         |         |         |         |         |         |         |         |         |         |
|------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                  | EAMGPA    | EAMGPA  | EAMGPA  | EAMGPA  | EASGPA  | EASGPA  | EASGPA  | EASGPA  | EAOGPA  | EAOGPA  | EAOGPA  | EAOGPA  | EAOGPA  | EAOGPA  |
|                  | 1         | 2       | 3       | C       | 1       | 2       | 3       | C       | 1       | 2       | 3       | 4       | C       |         |
| H3DA1            | PC        | 0.001   | 0.005   | -0.002  | 0.013   | -0.014  | 0.011   | -0.009  | 0.002   | -0.007  | 0.017   | 0.006   | 0.031   | 0.015   |
|                  | S2T       | 0.948   | 0.796   | 0.92    | 0.474   | 0.459   | 0.532   | 0.613   | 0.915   | 0.707   | 0.358   | 0.745   | 0.089   | 0.423   |
| H3DA2            | PC        | 0.03    | .043*   | 0.023   | .045*   | .059**  | 0.03    | .037*   | .050**  | .057**  | .061**  | .047**  | 0.032   | .057**  |
|                  | S2T       | 0.095   | 0.017   | 0.209   | 0.013   | 0.001   | 0.098   | 0.042   | 0.006   | 0.002   | 0.001   | 0.009   | 0.077   | 0.002   |
| H3DA3            | PC        | .106**  | .097**  | .083**  | .114**  | .112**  | .094**  | .094**  | .123**  | .120**  | .113**  | .109**  | .070**  | .117**  |
|                  | S2T       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| H3DA4            | PC        | -.073** | -.094** | -.089** | -.096** | -.087** | -.096** | -.056** | -.099** | -.105** | -.119** | -.094** | -.094** | -.120** |
|                  | S2T       | 0       | 0       | 0       | 0       | 0       | 0       | 0.002   | 0       | 0       | 0       | 0       | 0       | 0       |
| H3DA5            | PC        | -0.027  | -0.019  | -0.029  | -0.03   | -0.008  | -0.025  | -0.023  | -0.019  | -0.026  | -.040*  | -0.028  | -.049** | -.041*  |
|                  | S2T       | 0.143   | 0.304   | 0.11    | 0.101   | 0.665   | 0.169   | 0.212   | 0.29    | 0.148   | 0.028   | 0.128   | 0.007   | 0.024   |
| H3DA6            | PC        | -.038*  | -.054** | -0.029  | -.055** | -.045*  | -.048** | -0.034  | -.048** | -.059** | -.069** | -.054** | -.068** | -.073** |
|                  | S2T       | 0.035   | 0.003   | 0.109   | 0.002   | 0.013   | 0.008   | 0.063   | 0.008   | 0.001   | 0       | 0.003   | 0       | 0       |
| H3DA7            | PC        | -.116** | -.097** | -.085** | -.117** | -.113** | -.098** | -.060** | -.110** | -.139** | -.131** | -.114** | -.129** | -.149** |
|                  | S2T       | 0       | 0       | 0       | 0       | 0       | 0       | 0.001   | 0       | 0       | 0       | 0       | 0       | 0       |
| H3DA8            | PC        | -0.013  | -0.016  | -0.022  | -0.019  | 0.001   | -0.008  | 0.003   | -0.01   | 0.002   | 0       | -0.005  | -0.018  | -0.005  |
|                  | S2T       | 0.474   | 0.384   | 0.22    | 0.309   | 0.958   | 0.661   | 0.882   | 0.594   | 0.928   | 0.985   | 0.782   | 0.313   | 0.768   |
| H3DA9            | PC        | 0.014   | 0.023   | .052**  | .039*   | 0.035   | .037*   | 0.03    | .043*   | .045*   | .053**  | .069**  | .066**  | .067**  |
|                  | S2T       | 0.431   | 0.213   | 0.005   | 0.033   | 0.055   | 0.044   | 0.101   | 0.018   | 0.014   | 0.003   | 0       | 0       | 0       |
| H3DA10           | PC        | -0.025  | -.038*  | -0.032  | -.048** | -0.026  | -.047** | -0.015  | -.036*  | -.037*  | -.046*  | -0.023  | -.040*  | -.041*  |
|                  | S2T       | 0.178   | 0.037   | 0.082   | 0.008   | 0.156   | 0.01    | 0.424   | 0.049   | 0.042   | 0.011   | 0.201   | 0.029   | 0.025   |
| H3DA11           | PC        | .038*   | .060**  | 0.025   | .050**  | .066**  | .071**  | .051**  | .084**  | .087**  | .091**  | .071**  | .071**  | .089**  |
|                  | S2T       | 0.037   | 0.001   | 0.163   | 0.006   | 0       | 0       | 0.005   | 0       | 0       | 0       | 0       | 0       | 0       |
| H3DA12           | PC        | -0.02   | -0.014  | -0.019  | -0.026  | 0.002   | -0.015  | -0.005  | -0.003  | -0.013  | 0       | -0.003  | -0.029  | -0.011  |
|                  | S2T       | 0.275   | 0.432   | 0.29    | 0.154   | 0.933   | 0.41    | 0.799   | 0.862   | 0.487   | 0.989   | 0.85    | 0.11    | 0.541   |
| H3DA13           | PC        | -0.03   | -.037*  | -.037*  | -.047** | -.058** | -.050** | -.042*  | -.060** | -.048** | -.047** | -.051** | -.045*  | -.055** |
|                  | S2T       | 0.095   | 0.041   | 0.044   | 0.01    | 0.002   | 0.006   | 0.022   | 0.001   | 0.009   | 0.009   | 0.005   | 0.013   | 0.003   |
| H3DA14           | PC        | -.054** | -.060** | -.057** | -.061** | -.039*  | -.037*  | -.051** | -.054** | -.050** | -.048** | -.056** | -0.032  | -.052** |
|                  | S2T       | 0.003   | 0.001   | 0.002   | 0.001   | 0.031   | 0.044   | 0.005   | 0.003   | 0.006   | 0.009   | 0.002   | 0.078   | 0.004   |
| H3DA15           | PC        | .037*   | .056**  | .038*   | .048**  | .038*   | 0.031   | .055**  | .054**  | .057**  | .051**  | .057**  | 0.033   | .059**  |
|                  | S2T       | 0.041   | 0.002   | 0.035   | 0.009   | 0.035   | 0.085   | 0.003   | 0.003   | 0.002   | 0.005   | 0.002   | 0.069   | 0.001   |
| H3DA16           | PC        | -.080** | -.049** | -.062** | -.075** | -.054** | -.054** | -.058** | -.069** | -.076** | -.057** | -.068** | -.063** | -.075** |
|                  | S2T       | 0       | 0.007   | 0.001   | 0       | 0.003   | 0.003   | 0.001   | 0       | 0       | 0.002   | 0       | 0.001   | 0       |

\*PC=Pearson Correlation, S2T=Sig. (2-tailed)

Based on Table 11, we have rejected Hypothesis 10 as there are nonsignificant Pearson correlation coefficients between the current situation of all the independent variables and the dependent variables which are failure rate as it shows no relationship between these 2 categories of variables. Therefore, it causes nonsignificant Pearson correlation coefficients to occur between these types of activities and failure rate. However, there is also an interesting finding and pattern in which H3DA3, which are variables associated with how many times you watched a movie, played video or computer games, or used a computer to surf the Web, exchange emails, or participate in a chat room, have also shown a significant relationship between failure rates. This is because students will become addicted to it and cannot keep an eye on their examination. When students spend most of their daytime hours at school and devote more time in the evening to studying than leisure, frequent video games can potentially erode student engagement and motivation for learning (Hartanto et al., 2018).

**Table 11. Variables with a significant relationship between daily activities and the failure rate.**

| Daily Activities | Failure Rate |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|------------------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                  | EAMFIX1      | EAMFIX2 | EAMFIX3 | EAMFIX4 | EAMFIXC | EASFIX1 | EASFIX2 | EASFIX3 | EASFIXC | EAOFIX1 | EAOFIX2 | EAOFIX3 | EAOFIX4 | EAOFIXC |         |
| H3DA1            | PC           | 0.015   | 0.008   | 0.012   | -0.028  | 0.005   | 0.007   | 0.002   | -0.02   | -0.004  | 0.009   | 0.002   | -0.011  | 0.001   | -0.005  |
|                  | S2T          | 0.405   | 0.642   | 0.521   | 0.119   | 0.775   | 0.713   | 0.934   | 0.28    | 0.811   | 0.625   | 0.897   | 0.542   | 0.958   | 0.775   |
| H3DA2            | PC           | 0.034   | -0.009  | 0.022   | -0.008  | 0.016   | -0.024  | -0.011  | -0.034  | -0.023  | 0.016   | -0.016  | -0.022  | -0.004  | -0.017  |
|                  | S2T          | 0.062   | 0.612   | 0.221   | 0.667   | 0.375   | 0.183   | 0.562   | 0.065   | 0.213   | 0.375   | 0.376   | 0.234   | 0.833   | 0.356   |
| H3DA3            | PC           | -0.008  | -.045*  | -.045*  | -.043*  | -.052** | -0.034  | -.060** | -.065** | -.073** | -.042*  | -.067** | -.080** | -.048** | -.086** |
|                  | S2T          | 0.659   | 0.013   | 0.013   | 0.018   | 0.004   | 0.065   | 0.001   | 0       | 0       | 0.02    | 0       | 0       | 0.009   | 0       |
| H3DA4            | PC           | .043*   | .051**  | .036*   | 0.02    | .057**  | 0.035   | .043*   | -0.009  | .041*   | .057**  | .085**  | 0.025   | .039*   | .082**  |
|                  | S2T          | 0.017   | 0.005   | 0.05    | 0.27    | 0.002   | 0.052   | 0.019   | 0.605   | 0.026   | 0.002   | 0       | 0.175   | 0.032   | 0       |
| H3DA5            | PC           | 0.025   | 0.008   | 0.013   | 0.011   | 0.024   | 0.015   | -0.003  | 0.003   | 0.008   | 0.016   | 0.031   | 0.001   | 0.021   | 0.024   |

|        |     |        |        |        |        |        |        |        |        |        |        |         |        |        |         |
|--------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|---------|
|        | S2T | 0.167  | 0.676  | 0.463  | 0.536  | 0.195  | 0.421  | 0.873  | 0.869  | 0.673  | 0.384  | 0.086   | 0.959  | 0.254  | 0.191   |
| H3DA6  | PC  | 0.033  | 0.026  | 0.009  | -0.019 | 0.024  | 0.005  | 0      | -0.011 | -0.007 | 0.011  | 0.022   | -0.003 | 0.009  | 0.021   |
|        | S2T | 0.071  | 0.16   | 0.603  | 0.309  | 0.179  | 0.796  | 0.996  | 0.547  | 0.709  | 0.531  | 0.22    | 0.876  | 0.62   | 0.26    |
| H3DA7  | PC  | .065** | .044*  | 0.016  | 0.02   | .057** | .051** | 0.023  | -0.005 | .040*  | .054** | .068**  | 0.022  | .059** | .083**  |
|        | S2T | 0      | 0.016  | 0.394  | 0.281  | 0.002  | 0.005  | 0.206  | 0.775  | 0.029  | 0.003  | 0       | 0.226  | 0.001  | 0       |
| H3DA8  | PC  | 0.028  | .043*  | 0.032  | .048** | .057** | -0.007 | 0.027  | -0.005 | 0.015  | 0.015  | 0.027   | 0.003  | .039*  | 0.028   |
|        | S2T | 0.126  | 0.018  | 0.075  | 0.009  | 0.002  | 0.689  | 0.143  | 0.797  | 0.396  | 0.409  | 0.137   | 0.88   | 0.031  | 0.13    |
| H3DA9  | PC  | -0.007 | -0.014 | -0.034 | -0.006 | -0.022 | -0.027 | -0.012 | -0.024 | -0.023 | -0.015 | -0.033  | -.042* | -0.022 | -.042*  |
|        | S2T | 0.717  | 0.435  | 0.065  | 0.737  | 0.231  | 0.137  | 0.521  | 0.197  | 0.212  | 0.41   | 0.069   | 0.022  | 0.233  | 0.02    |
| H3DA10 | PC  | 0.001  | 0.008  | 0.024  | 0.032  | .037*  | 0.013  | 0.018  | -0.006 | 0.011  | 0.03   | 0.003   | 0.027  | 0.022  | 0.031   |
|        | S2T | 0.957  | 0.652  | 0.194  | 0.078  | 0.04   | 0.489  | 0.311  | 0.727  | 0.544  | 0.098  | 0.857   | 0.143  | 0.234  | 0.087   |
| H3DA11 | PC  | 0.014  | -0.03  | -0.004 | -0.004 | -0.008 | -0.018 | -0.004 | -0.032 | -0.035 | -0.019 | -.055** | -0.035 | -.038* | -.047** |
|        | S2T | 0.429  | 0.096  | 0.813  | 0.847  | 0.644  | 0.331  | 0.821  | 0.083  | 0.053  | 0.287  | 0.002   | 0.058  | 0.035  | 0.01    |
| H3DA12 | PC  | .049** | 0.013  | 0.011  | .043*  | .051** | 0.018  | 0.013  | -0.034 | 0.002  | .038*  | -0.001  | -0.012 | 0.024  | 0.018   |
|        | S2T | 0.007  | 0.492  | 0.536  | 0.018  | 0.005  | 0.333  | 0.491  | 0.06   | 0.922  | 0.035  | 0.967   | 0.499  | 0.186  | 0.319   |
| H3DA13 | PC  | -0.008 | -0.008 | 0.027  | 0.033  | 0.016  | -0.003 | 0.02   | 0.008  | 0.014  | 0      | 0.003   | 0.029  | 0.031  | 0.024   |
|        | S2T | 0.645  | 0.648  | 0.141  | 0.073  | 0.375  | 0.852  | 0.264  | 0.673  | 0.427  | 0.994  | 0.878   | 0.108  | 0.09   | 0.188   |
| H3DA14 | PC  | .047*  | 0.024  | .071** | 0.034  | .072** | 0.014  | .046*  | 0.008  | .040*  | .050** | .048**  | .055** | .040*  | .065**  |
|        | S2T | 0.011  | 0.179  | 0      | 0.065  | 0      | 0.429  | 0.012  | 0.643  | 0.03   | 0.006  | 0.008   | 0.003  | 0.029  | 0       |
| H3DA15 | PC  | 0.004  | -.042* | -0.027 | 0.007  | -0.023 | 0      | -0.032 | -0.01  | -0.025 | -0.021 | -.043*  | -0.024 | -0.003 | -.038*  |
|        | S2T | 0.814  | 0.022  | 0.134  | 0.702  | 0.204  | 0.992  | 0.077  | 0.582  | 0.178  | 0.259  | 0.019   | 0.192  | 0.852  | 0.037   |
| H3DA16 | PC  | .047*  | 0.022  | .065** | 0.022  | .071** | 0.011  | 0.005  | 0.01   | 0.015  | .042*  | 0.019   | .038*  | 0.025  | .043*   |
|        | S2T | 0.01   | 0.229  | 0      | 0.228  | 0      | 0.538  | 0.782  | 0.575  | 0.396  | 0.021  | 0.302   | 0.037  | 0.174  | 0.017   |

\*PC = Pearson’s correlation, S2T = Sig. (2-tailed)

Based on Tables 12, 13 and 14, we have rejected Hypothesis 11 as there are nonsignificant Pearson correlation coefficients between the current situation of variables of H3DA1, H3DA2, H3DA4, H3DA5, H3DA6, H3DA7, H3DA8, H3DA9, H3DA10, H3DA11, H3DA12, H3DA13, H3DA14, H3DA15 and the dependent variables which are taken as it shows no relationship between these two categories of variables. This is because the main subject taken by the student is based on the decision of their parents or their interest. Therefore, daily activities will not affect the student’s decision-making because the chosen subject is vital to their future work.

**Table 12: Variables with a significant relationship between daily activities and subjects taken. (Highschool courses taken).**

| Daily Activities |     | Subject Taken |         |         |         |         |         |         |         |         |         |
|------------------|-----|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                  |     | EAMSQ1        | EAMSQ2  | EAMSQ3  | EAMSQ4  | EAMSQH  | EAMSQB1 | EAMSQB2 | EAMSQB3 | EAMSQB4 | EAMSQBH |
| H3DA1            | PC  | -0.021        | -0.03   | -0.024  | -0.021  | -0.02   | -0.026  | -0.018  | -0.031  | -0.008  | -0.012  |
|                  | S2T | 0.254         | 0.104   | 0.181   | 0.258   | 0.283   | 0.158   | 0.312   | 0.091   | 0.657   | 0.498   |
| H3DA2            | PC  | .065**        | .049**  | .066**  | .080**  | .084**  | .045*   | .054**  | .049**  | .079**  | .081**  |
|                  | S2T | 0             | 0.007   | 0       | 0       | 0       | 0.013   | 0.003   | 0.007   | 0       | 0       |
| H3DA3            | PC  | .142**        | .145**  | .146**  | .152**  | .178**  | .124**  | .139**  | .139**  | .152**  | .177**  |
|                  | S2T | 0             | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| H3DA4            | PC  | -0.012        | -.055** | -.050** | -.058** | -.073** | -0.027  | -.053** | -.055** | -.057** | -.069** |
|                  | S2T | 0.498         | 0.003   | 0.006   | 0.002   | 0       | 0.133   | 0.004   | 0.003   | 0.002   | 0       |
| H3DA5            | PC  | 0.024         | 0.027   | -0.002  | .049**  | 0.02    | 0.009   | 0.016   | -0.008  | .045*   | 0.014   |
|                  | S2T | 0.194         | 0.133   | 0.933   | 0.007   | 0.262   | 0.619   | 0.39    | 0.662   | 0.013   | 0.432   |
| H3DA6            | PC  | -0.005        | -.039*  | -.058** | 0.016   | -0.032  | -0.022  | -.037*  | -.057** | 0.016   | -0.03   |
|                  | S2T | 0.782         | 0.031   | 0.002   | 0.381   | 0.075   | 0.218   | 0.041   | 0.002   | 0.368   | 0.094   |
| H3DA7            | PC  | -.037*        | -.086** | -.087** | -0.02   | -.081** | -.059** | -.084** | -.079** | -0.022  | -.082** |
|                  | S2T | 0.045         | 0       | 0       | 0.261   | 0       | 0.001   | 0       | 0       | 0.227   | 0       |
| H3DA8            | PC  | -0.01         | -0.024  | -0.014  | 0.007   | -0.024  | -0.023  | -0.035  | -0.013  | -0.004  | -0.028  |
|                  | S2T | 0.576         | 0.187   | 0.427   | 0.702   | 0.19    | 0.214   | 0.056   | 0.482   | 0.818   | 0.122   |
| H3DA9            | PC  | 0.035         | .037*   | .047*   | 0.017   | .038*   | .041*   | .038*   | .048**  | 0.022   | .040*   |
|                  | S2T | 0.052         | 0.041   | 0.01    | 0.358   | 0.035   | 0.025   | 0.036   | 0.008   | 0.222   | 0.03    |
| H3DA10           | PC  | -0.019        | -0.019  | -0.004  | 0.015   | -0.019  | -0.02   | -0.019  | -0.015  | -0.004  | -0.032  |
|                  | S2T | 0.292         | 0.296   | 0.821   | 0.41    | 0.288   | 0.277   | 0.285   | 0.416   | 0.827   | 0.078   |
| H3DA11           | PC  | .056**        | 0.03    | .067**  | .063**  | .054**  | .037*   | 0.029   | .059**  | .057**  | .045*   |
|                  | S2T | 0.002         | 0.104   | 0       | 0.001   | 0.003   | 0.04    | 0.109   | 0.001   | 0.002   | 0.013   |
| H3DA12           | PC  | 0.034         | 0.035   | 0.03    | .051**  | 0.031   | -0.004  | 0.027   | 0.027   | .037*   | 0.025   |
|                  | S2T | 0.066         | 0.056   | 0.1     | 0.005   | 0.094   | 0.844   | 0.14    | 0.143   | 0.043   | 0.173   |
| H3DA13           | PC  | -.059**       | -.060** | -.037*  | -0.028  | -.056** | -.038*  | -.048** | -.042*  | -0.033  | -.060** |
|                  | S2T | 0.001         | 0.001   | 0.042   | 0.124   | 0.002   | 0.035   | 0.008   | 0.022   | 0.067   | 0.001   |
| H3DA14           | PC  | -.056**       | -.069** | -.054** | -0.031  | -.082** | -.078** | -.058** | -.074** | -.042*  | -.087** |
|                  | S2T | 0.002         | 0       | 0.003   | 0.088   | 0       | 0       | 0.002   | 0       | 0.022   | 0       |

|        |     |         |         |         |        |         |         |         |         |         |         |
|--------|-----|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| H3DA15 | PC  | .096**  | .096**  | .133**  | .105** | .144**  | .075**  | .098**  | .120**  | .097**  | .140**  |
|        | S2T | 0       | 0       | 0       | 0      | 0       | 0       | 0       | 0       | 0       | 0       |
| H3DA16 | PC  | -.051** | -.069** | -.068** | -.047* | -.089** | -.061** | -.062** | -.084** | -.050** | -.092** |
|        | S2T | 0.005   | 0       | 0       | 0.01   | 0       | 0.001   | 0.001   | 0       | 0.006   | 0       |

\*PC = Pearson correlation, S2T = Sig. (2-tailed)

**Table 13: Variables with significant relationship between daily activities and subjects taken (Math sequence and level).**

| Daily Activities |     | Subject Taken |        |         |         |         |         |         |         |         |         |
|------------------|-----|---------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
|                  |     | EASSQ1        | EASSQ2 | EASSQ3  | EASSQ4  | EASSQH  | EASSQB1 | EASSQB2 | EASSQB3 | EASSQB4 | EASSQBH |
| H3DA1            | PC  | 0.001         | -.043* | 0.003   | -0.02   | -0.032  | -0.003  | -0.035  | 0.008   | -0.013  | -0.026  |
|                  | S2T | 0.954         | 0.017  | 0.876   | 0.268   | 0.082   | 0.877   | 0.054   | 0.66    | 0.462   | 0.146   |
| H3DA2            | PC  | 0.001         | -0.007 | 0.01    | .093**  | .055**  | 0.01    | 0.001   | 0.02    | .094**  | .058**  |
|                  | S2T | 0.954         | 0.699  | 0.587   | 0       | 0.003   | 0.584   | 0.954   | 0.284   | 0       | 0.002   |
| H3DA3            | PC  | 0.019         | .060** | .078**  | .117**  | .140**  | 0.026   | .071**  | .093**  | .122**  | .142**  |
|                  | S2T | 0.285         | 0.001  | 0       | 0       | 0       | 0.147   | 0       | 0       | 0       | 0       |
| H3DA4            | PC  | -0.014        | -0.021 | -.067** | -0.034  | -.055** | -0.017  | -0.024  | -.059** | -0.033  | -.056** |
|                  | S2T | 0.445         | 0.251  | 0       | 0.059   | 0.002   | 0.354   | 0.179   | 0.001   | 0.068   | 0.002   |
| H3DA5            | PC  | 0.011         | -0.013 | -0.011  | .054**  | 0.032   | 0.012   | -0.006  | -0.009  | .057**  | 0.035   |
|                  | S2T | 0.543         | 0.491  | 0.554   | 0.003   | 0.08    | 0.518   | 0.727   | 0.607   | 0.002   | 0.056   |
| H3DA6            | PC  | 0.012         | -0.003 | 0       | -0.027  | -0.01   | 0.014   | -0.002  | 0.002   | -0.023  | -0.011  |
|                  | S2T | 0.495         | 0.891  | 0.988   | 0.134   | 0.571   | 0.452   | 0.919   | 0.9     | 0.214   | 0.533   |
| H3DA7            | PC  | -0.002        | -0.032 | -0.034  | -0.015  | -0.032  | -0.01   | -.037*  | -0.032  | -0.013  | -0.03   |
|                  | S2T | 0.893         | 0.081  | 0.062   | 0.41    | 0.077   | 0.593   | 0.042   | 0.077   | 0.471   | 0.101   |
| H3DA8            | PC  | -0.019        | 0.006  | -0.014  | 0.035   | 0.013   | -0.018  | 0.001   | -0.012  | 0.032   | 0.012   |
|                  | S2T | 0.295         | 0.756  | 0.434   | 0.057   | 0.467   | 0.332   | 0.971   | 0.508   | 0.083   | 0.5     |
| H3DA9            | PC  | -0.006        | -0.023 | .040*   | 0.014   | 0.02    | -0.001  | -0.02   | .047**  | 0.014   | 0.023   |
|                  | S2T | 0.746         | 0.198  | 0.03    | 0.444   | 0.266   | 0.95    | 0.265   | 0.01    | 0.433   | 0.208   |
| H3DA10           | PC  | -0.021        | -0.022 | -0.018  | 0.013   | -0.023  | -0.027  | -0.026  | -0.022  | 0.012   | -0.028  |
|                  | S2T | 0.256         | 0.221  | 0.318   | 0.468   | 0.215   | 0.144   | 0.154   | 0.236   | 0.526   | 0.124   |
| H3DA11           | PC  | 0.005         | 0.033  | 0.014   | .080**  | .056**  | 0.009   | 0.022   | 0.027   | .084**  | .058**  |
|                  | S2T | 0.799         | 0.068  | 0.441   | 0       | 0.002   | 0.611   | 0.218   | 0.134   | 0       | 0.001   |
| H3DA12           | PC  | 0.014         | 0.005  | 0.02    | .048**  | .039*   | 0.008   | -0.005  | 0.029   | .047*   | .043*   |
|                  | S2T | 0.441         | 0.763  | 0.272   | 0.008   | 0.03    | 0.678   | 0.795   | 0.106   | 0.01    | 0.018   |
| H3DA13           | PC  | -0.005        | -0.029 | -.039*  | 0.009   | -0.033  | -0.009  | -0.032  | -0.03   | 0.008   | -0.032  |
|                  | S2T | 0.788         | 0.115  | 0.032   | 0.631   | 0.067   | 0.636   | 0.075   | 0.095   | 0.667   | 0.082   |
| H3DA14           | PC  | -0.024        | -0.028 | -0.022  | -0.024  | -.049** | -0.021  | -.042*  | -0.03   | -0.026  | -.050** |
|                  | S2T | 0.182         | 0.129  | 0.219   | 0.186   | 0.007   | 0.253   | 0.022   | 0.103   | 0.16    | 0.006   |
| H3DA15           | PC  | 0.028         | 0.033  | .083**  | .072**  | .084**  | 0.027   | 0.035   | .077**  | .072**  | .078**  |
|                  | S2T | 0.121         | 0.067  | 0       | 0       | 0       | 0.145   | 0.058   | 0       | 0       | 0       |
| H3DA16           | PC  | -0.011        | -.037* | -.047** | -.051** | -.071** | -0.012  | -0.026  | -.044*  | -.050** | -.066** |
|                  | S2T | 0.564         | 0.041  | 0.01    | 0.005   | 0       | 0.526   | 0.154   | 0.015   | 0.006   | 0       |

\*PC = Pearson's correlation, S2T = Sig. (2-tailed)

**Table 14: Variables with significant relationship between daily activities and subjects taken (science sequence and level).**

| Daily Activities |     | Subject Taken |        |         |        |         |         |         |         |         |         |
|------------------|-----|---------------|--------|---------|--------|---------|---------|---------|---------|---------|---------|
|                  |     | EASSQ1        | EASSQ2 | EASSQ3  | EASSQ4 | EASSQH  | EASSQB1 | EASSQB2 | EASSQB3 | EASSQB4 | EASSQBH |
| H3DA1            | PC  | 0.001         | -.043* | 0.003   | -0.02  | -0.032  | -0.003  | -0.035  | 0.008   | -0.013  | -0.026  |
|                  | S2T | 0.954         | 0.017  | 0.876   | 0.268  | 0.082   | 0.877   | 0.054   | 0.66    | 0.462   | 0.146   |
| H3DA2            | PC  | 0.001         | -0.007 | 0.01    | .093** | .055**  | 0.01    | 0.001   | 0.02    | .094**  | .058**  |
|                  | S2T | 0.954         | 0.699  | 0.587   | 0      | 0.003   | 0.584   | 0.954   | 0.284   | 0       | 0.002   |
| H3DA3            | PC  | 0.019         | .060** | .078**  | .117** | .140**  | 0.026   | .071**  | .093**  | .122**  | .142**  |
|                  | S2T | 0.285         | 0.001  | 0       | 0      | 0       | 0.147   | 0       | 0       | 0       | 0       |
| H3DA4            | PC  | -0.014        | -0.021 | -.067** | -0.034 | -.055** | -0.017  | -0.024  | -.059** | -0.033  | -.056** |
|                  | S2T | 0.445         | 0.251  | 0       | 0.059  | 0.002   | 0.354   | 0.179   | 0.001   | 0.068   | 0.002   |
| H3DA5            | PC  | 0.011         | -0.013 | -0.011  | .054** | 0.032   | 0.012   | -0.006  | -0.009  | .057**  | 0.035   |

|        |     |        |        |         |         |         |        |        |        |         |         |
|--------|-----|--------|--------|---------|---------|---------|--------|--------|--------|---------|---------|
|        | S2T | 0.543  | 0.491  | 0.554   | 0.003   | 0.08    | 0.518  | 0.727  | 0.607  | 0.002   | 0.056   |
| H3DA6  | PC  | 0.012  | -0.003 | 0       | -0.027  | -0.01   | 0.014  | -0.002 | 0.002  | -0.023  | -0.011  |
|        | S2T | 0.495  | 0.891  | 0.988   | 0.134   | 0.571   | 0.452  | 0.919  | 0.9    | 0.214   | 0.533   |
| H3DA7  | PC  | -0.002 | -0.032 | -0.034  | -0.015  | -0.032  | -0.01  | -.037* | -0.032 | -0.013  | -0.03   |
|        | S2T | 0.893  | 0.081  | 0.062   | 0.41    | 0.077   | 0.593  | 0.042  | 0.077  | 0.471   | 0.101   |
| H3DA8  | PC  | -0.019 | 0.006  | -0.014  | 0.035   | 0.013   | -0.018 | 0.001  | -0.012 | 0.032   | 0.012   |
|        | S2T | 0.295  | 0.756  | 0.434   | 0.057   | 0.467   | 0.332  | 0.971  | 0.508  | 0.083   | 0.5     |
| H3DA9  | PC  | -0.006 | -0.023 | .040*   | 0.014   | 0.02    | -0.001 | -0.02  | .047** | 0.014   | 0.023   |
|        | S2T | 0.746  | 0.198  | 0.03    | 0.444   | 0.266   | 0.95   | 0.265  | 0.01   | 0.433   | 0.208   |
| H3DA10 | PC  | -0.021 | -0.022 | -0.018  | 0.013   | -0.023  | -0.027 | -0.026 | -0.022 | 0.012   | -0.028  |
|        | S2T | 0.256  | 0.221  | 0.318   | 0.468   | 0.215   | 0.144  | 0.154  | 0.236  | 0.526   | 0.124   |
| H3DA11 | PC  | 0.005  | 0.033  | 0.014   | .080**  | .056**  | 0.009  | 0.022  | 0.027  | .084**  | .058**  |
|        | S2T | 0.799  | 0.068  | 0.441   | 0       | 0.002   | 0.611  | 0.218  | 0.134  | 0       | 0.001   |
| H3DA12 | PC  | 0.014  | 0.005  | 0.02    | .048**  | .039*   | 0.008  | -0.005 | 0.029  | .047*   | .043*   |
|        | S2T | 0.441  | 0.763  | 0.272   | 0.008   | 0.03    | 0.678  | 0.795  | 0.106  | 0.01    | 0.018   |
| H3DA13 | PC  | -0.005 | -0.029 | -.039*  | 0.009   | -0.033  | -0.009 | -0.032 | -0.03  | 0.008   | -0.032  |
|        | S2T | 0.788  | 0.115  | 0.032   | 0.631   | 0.067   | 0.636  | 0.075  | 0.095  | 0.667   | 0.082   |
| H3DA14 | PC  | -0.024 | -0.028 | -0.022  | -0.024  | -.049** | -0.021 | -.042* | -0.03  | -0.026  | -.050** |
|        | S2T | 0.182  | 0.129  | 0.219   | 0.186   | 0.007   | 0.253  | 0.022  | 0.103  | 0.16    | 0.006   |
| H3DA15 | PC  | 0.028  | 0.033  | .083**  | .072**  | .084**  | 0.027  | 0.035  | .077** | .072**  | .078**  |
|        | S2T | 0.121  | 0.067  | 0       | 0       | 0       | 0.145  | 0.058  | 0      | 0       | 0       |
| H3DA16 | PC  | -0.011 | -.037* | -.047** | -.051** | -.071** | -0.012 | -0.026 | -.044* | -.050** | -.066** |
|        | S2T | 0.564  | 0.041  | 0.01    | 0.005   | 0       | 0.526  | 0.154  | 0.015  | 0.006   | 0       |

\*PC=Pearson Correlation, S2T=Sig. (2-tailed)

Based on Table 15, we have rejected Hypothesis 12 as there are nonsignificant Pearson correlation coefficients between the current situation of the variables of H3DA1, H3DA2, H3DA7, H3DA8, H3DA9, H3DA10, H3DA11, H3DA12, H3DA13, H3DA14, H3DA15, H3DA16 and the dependent variables which are graduate status, as it shows no relationship between these two categories of variables. This is because the graduate status of the student is based on whether the student’s GPA level is pass or not. If the GPA of the students achieves the minimum passing level, they graduate as well. Shows that daily activities do not have a relationship with graduate status. There is also an interesting finding and pattern where H3DA4, which are the variables associated with how many hours a week you spend watching videos, have also shown a significant relationship between graduate status. This will happen because the student watching television normally watches the drama. It takes a long time to fully finish watching a drama. Therefore, if students are watching television, it will not give them enough time to do their assignment, even revision, and cause them to fail the subject and eventually cannot graduate.

**Table 15. Variables with a significant relationship between daily activities and graduate status.**

| Daily Activities |     | Graduate Status |         |
|------------------|-----|-----------------|---------|
|                  |     | ERGRADM         | ERGRADY |
| H3DA1            | PC  | -0.012          | -.096** |
|                  | S2T | 0.498           | 0       |
| H3DA2            | PC  | 0.01            | .054**  |
|                  | S2T | 0.572           | 0.003   |

|        |     |        |         |
|--------|-----|--------|---------|
| H3DA3  | PC  | 0.015  | 0.022   |
|        | S2T | 0.405  | 0.218   |
| H3DA4  | PC  | -.043* | .037*   |
|        | S2T | 0.018  | 0.041   |
| H3DA5  | PC  | 0.016  | 0.036   |
|        | S2T | 0.393  | 0.051   |
| H3DA6  | PC  | -.045* | -.080** |
|        | S2T | 0.013  | 0       |
| H3DA7  | PC  | -.043* | -0.017  |
|        | S2T | 0.019  | 0.344   |
| H3DA8  | PC  | 0.011  | .069**  |
|        | S2T | 0.544  | 0       |
| H3DA9  | PC  | -0.01  | .047*   |
|        | S2T | 0.596  | 0.01    |
| H3DA10 | PC  | 0.01   | .129**  |
|        | S2T | 0.592  | 0       |
| H3DA11 | PC  | 0.012  | .070**  |
|        | S2T | 0.504  | 0       |
| H3DA12 | PC  | -0.012 | .069**  |
|        | S2T | 0.502  | 0       |
| H3DA13 | PC  | 0.009  | .043*   |
|        | S2T | 0.626  | 0.018   |
| H3DA14 | PC  | -0.027 | 0.011   |
|        | S2T | 0.145  | 0.537   |
| H3DA15 | PC  | 0.034  | .143**  |
|        | S2T | 0.063  | 0       |
| H3DA16 | PC  | -0.015 | 0.004   |
|        | S2T | 0.402  | 0.823   |

\*PC = Pearson's correlation, S2T = Sig. (2-tailed)

## CONCLUSIONS

This study examined variables that favorably or negatively affect academic achievement in a large sample of young adults of various races in the United States. Our study found that the academic performance of young adults in the US is not affected by life management. Even if this outcome was unexpected, there are some valid reasons why it is still acceptable. The findings are in line with many earlier investigations, with additional detailed analyses of linked components in the earlier studies filling in any knowledge gaps regarding a factor's management of life with academic performance. There is interest in investigating physical activity in multiple domains of executive functions, attention, and academic performance in pre-adolescent children (de Greeff et al., 2018; Ting et al., 2024; Yi et al., 2022). For example, in the demographic category, researchers only focus on executive functions, attention, and academic performance. However, this research includes the highest education level and its cumulative GPA result as its academic performance indicators, each year's math and science GPA, the year the course was taken, and failure signs in detail. As for managing life, details such as general health, daily activities, and personal economies are included in the investigation.

It is crucial that the predictors in this study be broken down in detail to effectively predict a young adult's life management and associated academic achievement in future research, including AI-based data analytics employing machine learning techniques. AI-based educational data analytics is

becoming more and more popular in this big data era. The findings of this study serve as a basis for big data analytics in educational data mining, which will be the main topic of this study's follow-up work. Most of the previous studies were restricted to one school, making it impossible to apply the findings to other regions. Therefore, this study closes the gap by collecting opinions from young adults in various US cities and academic institutions. This is crucial to ensure that the findings may be applied again and generalized more precisely.

There are still many factors that can influence the result in this research. Participants in the high school students in the current study were from the United States (US), which limits the generalizability of the results from other academic studies outside the center of North America. Based on the results of this study, it is suggested to develop mentoring programs or seminars to improve how students can have a good management of their life so that they can experience the time to focus on academics and have a good standard of living. Especially high school students who lack health awareness, do not have organized daily activities, and the economic pressure is particularly tense to keep them from falling behind in their schoolwork. Future research encourages the study of the relationship between academic performance and psychological variables. For example, psychological seclusion, stress, depressive symptoms, personality traits, academic success. Additionally, it would be beneficial to carry out an experimental study with the goal of creating a guidance program to help students achieve good academic performance, as well as research to identify the variables influencing poor academic performance among university and high school students. In summary, the factor structure of the academic performance questionnaire used in the current study deserves further investigation.

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