

# EXAMINING THE ROLE OF HOBBIES IN REDUCING ACADEMIC BURNOUT OF THE SENIOR HIGH SCHOOL STEM (SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS) STUDENTS

Ronn Ezekiel A. Arangel<sup>1</sup>, Jake Aldrin G. Celeste<sup>1</sup>, Victoria Nicole C. Quindoy<sup>1</sup>, Heiven M. Soriano<sup>1</sup>, and Jeffrey C. Cabal, MAEd, RPm, LPT<sup>2</sup>

<sup>1</sup>Science, Technology, Engineering, and Mathematics Strand, Senior High School Department

<sup>2</sup>Faculty Member, General Education Area – Collegiate Department

Correspondence: 3190034@letranbataan.edu.ph

## ABSTRACT

*Students face academic burnout due to physical, mental, and emotional stress that leads to a lack of rest. Academic burnout affects a student's performance that leads to a negative outlook on their performance and lack of interest. This study aims to determine how hobbies can eliminate the academic burnout of STEM students and the benefits. The findings of the study also fill in the gap of hobbies as an effective way to eliminate academic burnout. An online survey was conducted among 90 STEM students to know their type of hobbies. The researchers used quota sampling, a non-probability sampling method, to get the respondents. Likert scales were used to determine the symptoms of academic burnout, experiences towards their hobbies, and both. There were 57 (63.3%) grade 11 students and 33 (36.7%) grade 12 students. The age range was 15 – 18 years. The female respondents have a frequency of 49 (54.4%), while the male respondents have a frequency of 41 (45.6%). The respondents have experienced exhaustion, lack of interest in doing school tasks, over workload, etc. However, the respondents never used abusive substances to cope with their burnouts. The highest type of hobby was Enrichment with a frequency of 52 (57.8%), while the second-highest was Socializing with a frequency of 38 (31.1%). There were great responses from the respondents on how they avoid, deal with, and recover from academic burnout. The results of this study show that academic burnout can be dealt with by doing, avoided and recovered hobbies.*

**Keywords:** *Hobbies, Stress, Burnout, Sleep, Well-being*

## INTRODUCTION

The term "Burnout" was first used by Herbert Freudenberger, an American Psychologist in the 1970s. The term is used for the effects of overwhelming stress and exhaustion from work (Depression: What is burnout?, 2020). Burnout is dealt with by emotion, stress, and motivation, which is a response to exhaustion and a sense of unproductiveness

(Maslach, 2016). When a person does not achieve the capability of doing a task due to too much stress, the symptoms of burnout are exhaustion, alienation from work, and reduced performance. It may severely affect one's performance in doing a task and the quality of work done (Depression: What is burnout?, 2020). There are three dimensions of burnout which are over-exhaustion, the feeling of cynicism and detachment

from the job, and lack of accomplishment of effectiveness in doing a job. The three dimensions are used to place an individual's stress experience to where they belong in the concept of the context within their perspective and others (Maslach, 2016).

Burnouts can vary like work burnout, under-challenge burnout, and academic burnouts. The demands in academic performance may lead to having lack of interest and a discouraging look into the performances of students that may result in burnout (Zhang, 2007). Burnout among students refers to the exhaustion from doing academic tasks that may lead to having a negative outlook and lack of interest in doing academic performance tasks (Charkhabi, 2013). One of the factors that may affect burnout nowadays, is the stress in online learning. Online learning may be overwhelming, since there may be workloads given out to students that may stress them and over-exhaust with school works (Pavlakis, 2012). Over workload may be a factor, an individual has more little time to rest and recover from the work that has been assigned to them, and the insufficient rewards given to them may be also a factor, it may devalue the time and effort they gave into their performance. These are some important factors that may cause burnout (Fink, 2016). There are signs such as lack of interest in school activities, failing to attend a class, and incapable of participating in any academic activities that many students may experience while having an academic burnout (Hui-JenYang, 2005).

Burnout is a dreadful feeling that a person can experience which affects his/her physical, emotional, and mental state due to extreme volumes of stress that are unreleased by a person. Stress and burnout can be identical in some ways, but having burnout is far worse than experiencing stress. Stress can be dealt with ease since the urge of accomplishing a certain task is still present inside the person's brain but on the other hand, burnouts make a person feel empty which is far more dangerous than stress. Experiencing frequent exhaustion, aches, changes in both sleeping and eating manner, and a weaker immune system are the physical consequences of

experiencing burnout. Furthermore, not only the physical state of a person gets affected but as well as the mental state of a person since doubts, negativity, loneliness, helplessness, lack of satisfaction in one's work, and lack of drive are the effects on a person's mentality. Behavioral changes are also noticeable if a person is currently under burnout since a person's sense of responsibility disappears, venting out frustrations to other people, separation from other people, and procrastination happens, as well as utilizing substances to deal with burnouts. So, it is advisable to avoid taking immense amounts of stress and seek help from professionals and relatives for help (Smith, 2019).

Academic burnout can be a problem for students and can have a negative impact on the students' efficacy. Furthermore, academic burnout can cause psychological disorders such as anxiety, depression, frustration, hostility, and fear in other students. Academic burnout can also cause problems to the government financially, because it can cause a student to retake failed classes and cause extra charges to the student (Rhamtapour, 2019).

Burnout is a condition that can influence individuals in an assortment of settings. It is related to diminished profitability, fulfillment, and expanded paces of disposition issues, for example, gloom and uneasiness, and plenty of physical issues including expanded irritation biomarkers and cardiovascular sickness, metabolic disorder, rest unsettling influences, changes in hunger, exhaustion, brought down invulnerability, cerebral pains, and gastrointestinal pain (Norez, 2017).

Responsibilities and never-ending tasks are the reasons why hobbies are essential in our lives. Since stress associate with all of the horrendous mental problems like depression, anxiety, sleep deprivation, and breakdowns. Having a hobby helps to release the amassing stress that a person receives with everyday living. The most benefit of hobbies is our mental health. Hobbies serve as a reset button for our brains when we experience a build-up of stress, since this calms our minds and relaxes both the physical and mental state

of our body. Having a boosted mood happens to be essential to have an enjoyable life, and hobbies appear to be one of the best things to have a more fulfilling life. Painting, drawing, sculpting, and other arts can be utilized as a way of removing stress that has accumulated and affected a person's mental health. Since burnouts caused by stress can reduce a person's self-appreciation, confidence, and sense of accomplishment having hobbies opposes the negative impacts of burnouts and restores the feeling of self-worth and appreciation to oneself, according to health experts. The risk of having depression, Alzheimer's disease, substance dependence, and other abusive diseases and habits significantly reduces, if hobbies were prioritized, since it is also recognized as a way of taking care of one's mind and body (Ray, 2017)

Spending time on an activity one enjoys can improve mental health and wellbeing. Research shows that people with hobbies are less likely to experience stress, bad mood, and depression. It also shows that group activities, such as team sports can improve ones' communication skills and relationships with others. Hobbies can be creative, athletic, academic, or something distinctly personal, it can also be noted that one can choose a hobby whether alone or with a group. (Health, 2019)

Hobbies are a way to take a break from the routine of a person's daily life. It can be a stress-reliever, a mental retreat while providing an opportunity to enhance skills and socializing with other people. Hobbies have many benefits. The physiological benefits of doing a hobby are the increase in heart rate and brain function. The mental and emotional benefits are decreasing stress, rising our self-esteem, and giving a sense of mastery and control in the tasks. Another benefit is having a bond with other people by communicating and cooperating with others that may help in improving and reducing stress. Hobbies allow a person to improve and boosting confidence in your daily lives (Kettering University, 2019)

Burnouts have always been a horrible psychological problem that a person experience. Having high amounts of stress that are not removed is what causes burnout. Hobbies

play a vital role in avoiding and treating fatigue to solve this psychological dilemma that causes terrible effects such as depression, anxiety, lack of motivation, and other forces that hinders a person's ability to focus and be productive. Hobbies also serve as breaks from responsibilities during workdays, by having at least 20 minutes of leisure, a person can avoid fatigues caused by shouldering multiple responsibilities. Eustress that is considered by medical experts as the "good stress" is also produced inside a person's brain when doing hobbies that aid a person's mental and psychological health. Most hobbies are accomplished alone, but some hobbies can be done together by close peers that also benefit the person, since peers support each other, interact with each other, and loneliness diminishes. Hobbies also make people do tasks that do not require much work and thinking, since a person already has great personal skills in his/her hobbies that eliminate the stressors in life in a short amount of time. A sense of joy and freedom can be experienced as well when doing hobbies that aid in the recovery of the body and mind by eliminating large amounts of stress that both have accumulated over time. These are the reasons why hobbies help combat the stress of students, workers, and anyone who feels the horrible effects of stress (Scott, 2020).

Coping strategies, dispositional optimism, and academic burnouts can affect a student's performance. A students' academic performance can be evaluated by using the grade point average (GPA). Results turned out that academic burnout was affected if it was maladaptive or adaptive coping. In addition to that, students' optimism played a role in emotional exhaustion. In conclusion optimism and adaptive coping can influence if the student will experience academic burnout, in turn, which can positively or negatively affect a students' academic performance. (Vizoso, 2019)

Burnout causes a lot of stress so how hobbies can fight it. One of the best hobbies to fight burnout is by doing yoga. Yoga was a combination of physical, mental meditation, and breathing techniques. It encompasses physical postures and breathing exercises that facilitate mindfulness (Marquez, 2011).

Conceptual Framework

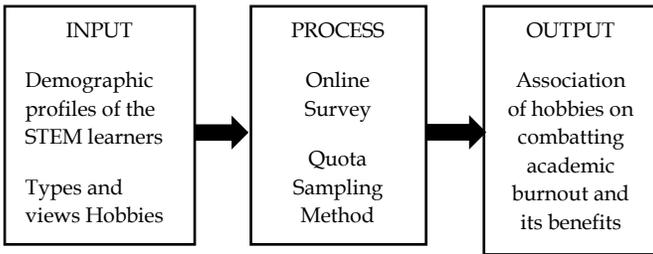


Figure 1: Conceptual Framework

In the input section, the demographic profiles of the STEM learners were gathered, such as their grade level, age, and sex. The types of hobbies and their views about it were also gathered, which is the most essential data for this study. Hobbies were divided into different types by the researchers, and there were six types of hobbies included in this study, namely enrichment hobbies, sports hobbies, creative hobbies, social activities, collecting, and outdoor hobbies. Enrichment hobbies are hobbies that improve the mind such as reading, gaming, listening to music, and other hobbies that use the critical thinking of a person. On the other hand, sports hobbies are mainly focused on sports and the development of a person’s physical figure such as working out. Furthermore, creative hobbies are hobbies that use the person’s creativity on crafts such as, cooking, drawing, painting, pottery, and needle arts. Also, social activities are hobbies, where interacting with other people is necessary, such as games with friends and hanging out with other people. Collecting is also a type of hobby that focuses on collecting things, such as shells, pictures, decorations, and antique objects, Lastly, outdoor hobbies are mostly focused on the outdoors, such as biking, hiking, swimming, road trips, and camping.

In the process section, the researchers conducted the study by the use of google forms, and created an online survey for the learners that participated in the study. The sampling method that the researchers considered was the non-probability sampling method. The type of non-probability sampling method that was used in this study was the quota sampling method when selecting the possible respondents.

In the output section, the results of the study will help students, parents, and teachers how to recognize and handle academic burnout by using different recreational activities. Also, this will help increase the academic performance and the state of well-being of the learners. This study will also be able to identify the effectiveness of hobbies when dealing with academic burnouts.

Literature Review

A study has shown that the relationship between the variables of work organization and outcomes, like the quality of care and job satisfaction may have an impact on burnout in nursing. One of the factors that contribute to burnout in nursing is the workforce. There are other known and unknown variables that may contribute to the causes of burnout. Maslach theorized burnout is a result of a prolonged conflict with a person and one of the six dimensions of works. Maslach developed a scale to measure burnout. A theoretical review in quantitative studies was conducted to examine the work-related factors in the workforce of nursing and the association with burnout. 91 studies were identified, and the majority of the studies ( $n = 87$ ) were cross-sectional studies. However, there are only 39 studies that used all three subscales of the Maslach Burnout Inventory (MBI) scale to measure burnout. Other factors may be associated with burnout, such as low nurse staff, high demands in job, long shift, and low schedule flexibility. The results show the consistent patterns of high demands of workload, low staff, long hours of shifts are factors of burnout in nursing. The studies on burnout in nursing support Maslach’s theory, but some areas are insufficient. Nonetheless, the effects of burnout on staff are severe (Dall’Ora, 2019).

Burnout research is more often related to the professional field, however, the number of studies in high school is low. Academic burnout may occur in students when there is a high demand for school works, lack of time to rest, high pressure from teachers and parents, incompetence in learning, and lack of achievements. Student burnout and internet addiction are two very common yet serious problems

among adolescent people. There are three components of academic burnout: emotional exhaustion, cynicism, and lack of personal achievement. Furthermore, people who have internet addiction have similarities with people who are associated with academic burnout. It shows people who have internet addiction can be a factor that contributes to academic burnout. Additionally, past studies show student burnout may be related to school and family environments. People who have burnout should have strong support from the family and school, people who have less support tend to have an increase in exhaustion. In a survey among 230 high school students, statistical analysis was used to determine the factors of internet addiction. The results of the study showed that a high level of internet addiction may contribute to academic burnout. Reducing internet addiction and academic burnout among students should also be targeted in school and family environments (Tomaszek, 2020).

Academic burnouts have been affecting the three dimensions of wellness of students for a long time now. The physical, mental, and emotional well-being of a student that is experiencing academic burnouts will likely be in a severe condition since these three dimensions of wellness are always the focus of academic burnouts. According to a study done in Taiwan, senior high school learners were more likely to experience academic burnouts rather than students in the lower grades. Furthermore, both physical and mental fatigue, sleep deprivation, daytime sleepiness, and depression were the effects of having high academic pressure. Fatigue and daytime sleepiness were the most dominant problems that learners experience and mainly result in the breakdown of the brain's abilities, such as memorizing and critical thinking. Performance on the different tasks that students do also falls as well as having emotional distress that also hinders the learners' abilities to focus and learn something new in school. The effects of long-period fatigue can provoke students to pass low-quality school works, have more absences, and develop a lack of interest in school. Additionally, academic burnouts result in sleep deprivation and also dreadfully impacts the learners, since the

suggested amount of sleep for teenagers is eight hours and above, but considering that several tasks are to be submitted in time, the average rest that students can garner is just about 7 hours, and this results in psychological, mental, and sleep disorders. The risk of depression and suicides drastically increases, if a learner experiences academic burnout, according to a study on Korean students, since studies tend to be more stressful compared to other regions of the world. Mental and emotional health tends to be in a grave state as well as cognitive performances and depression of learners that always face academic burnouts in Taiwan (Tien-Yu Chen, 2015).

There is a correlation between academic engagement, achievement, and burnout. A study consisting of 277 first-year medical students from four different universities was given an Utrecht Work Engagement scale Scale-Student and Maslach Burnout Inventory Student Survey (MBI-SS). Results of the survey are then correlated to grades. Results show that there are students with moderately high levels of engagement and having low burnout levels. A high level of satisfaction among students while having moderate exhaustion level. Academic achievement was correlated with the degree of engagement but not with academic burnout. The results of the Conglomerate analysis show that a group of students have high levels of well-being accompanied by high levels of academic engagement while having low burnout levels. Another group showed that while having moderate levels of engagement and a lack of personal fulfillment. Another group identified with having high levels of personal exhaustion and depersonalization. Finally, a group reported having low academic engagement, low emotional exhaustion, and high levels of depersonalization, and a lack of personal fulfillment. Academic achievement is connected with the level of engagement but not with burnout (Gomez, 2015).

A group of Turkish preclinical dental students has partaken in the study ( $n = 329$ , 50.5% of females and 49.5% of males) between the ages of 18 and 24. Data has been gathered through the Maslach burnout inventory student version, academic satisfaction scale, and personal information sheet. For

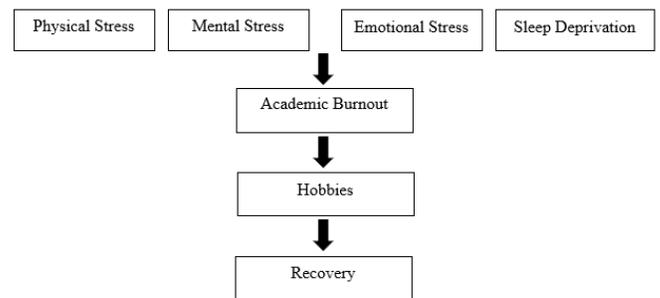
the statistical analysis Pearson correlation analyses, t-test, and one-way ANOVA were used. The proposed was observed through variable path analysis using maximum likelihood parameter estimation with AMOS 7.0. Results show that 22.3% of the students have a high level of emotional exhaustion, 16.7% of the students have a high level of cynicism, the general distrust of other people's motives, 17.9% of those students reported having a high level of reduced academic efficacy. The students who are attending first grade have a high level of a reduced amount of academic efficacy, those who attended third grade, however, have higher levels of emotional exhaustion. The development of a burnout can be influenced by the amount of academic workload which is important an important factor in a burnout. The consequences of the students who have high levels of burnout have an intention to change the current major of said students and have no plans to continue postgraduate education. Also, students with a reportedly high level of burnout have a reduced level of academic satisfaction and academic achievement (Atalayin, 2015).

Academic burnout can have its toll on those who experience it as well as those around the person. For the individual its effects can lead to displeasure with work and with life as a whole, it can also impact ones' ability to have persistent amounts of motivation, engagement, and being productive. The people experiencing an elevated amount of burnout have higher chances of leaving or being absent from school for no particular reason and switching schools are possible. Those suffering from burnout are prone to feelings of failure and depression. Burnout could also negatively impact a persons' physical health by having elevated levels of inflammation biomarkers, metabolic syndrome (high blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol or triglycerides), cardiovascular disease, diabetes, and neurodegeneration. Understanding burnout and the factors that influence it can help address high levels of stress before it turns to burnout. Burnout can be influenced by many factors, some controllable by the person while some are not. Take for example personality, those whose higher levels of a personality

trait such as introversion, lack of direction shows to have a higher chance of burnout (Norez, 2017).

The question left for the researchers is to solve the dilemma on how to prevent, deal with, and recover from burnouts that are caused by stress. High pressure from the learners' family and teachers, tight schedules, lack of rest, internet addiction, and high demands of tasks have been the main causes of burnout according to the related studies conducted by different researchers and experts worldwide. Since hobbies are proven to help against burnouts, knowing what are the effective hobbies for academic fatigue is crucial for the researchers to study. There may be chances that different hobbies are less effective than other hobbies when trying to recover from academic fatigue and this is the main dilemma that the researchers of this study face.

*Theoretical Framework*



**Figure 2: Theoretical Framework**

The researchers predicted that physical, mental, and emotional stress leads to burnout and results in a lack of rest. Once a learner experiences more stress, burnouts happen where moodiness and cynicism happen. Moodiness and cynicism occur due to the body's need to take a rest, which results in more motivation on rest and a decrease in the motivation to do school responsibilities and school tasks. According to Maslow's hierarchy of needs, sleep or rest is a part of the physiological needs of a person, and if a person's physiological needs are lacking, a person can have an increase in motivation to have the required need/s, which results in less focus and motivation to the things that are physiologically needed like certain school

tasks (McLeod, 2020). Because hobbies were predicted to be a way to recover from burnouts alongside sufficient amounts of rest, academic burnouts can be dealt with way faster, if a learner will also carry out the recreational activities that he/she likes and the motivation for rest can decrease efficiently and eventually the learner can be more motivated on his/her school works.

#### *Objectives of the study*

The study aimed to know how hobbies can eliminate the academic burnout of learners. The researchers wanted to understand the effectiveness of recreational activities by the learners' own experiences when they are practicing their recreational activities which are necessary information for the researcher's dilemma. Specifically, the study determined the following: (1) to gather the demographics of the senior high school STEM respondents. (2) gather the most common and the 2 favorite hobbies that high school learners are taking into practice. (3) to know if hobbies are beneficial when learners are trying to avoid, deal with, and recover from academic burnouts or if hobbies do not help against academic burnouts at all. (4) and if hobbies were proven to be beneficial when experiencing or avoiding academic burnouts, what are the hobbies that will be the best course of action for learners when dealing burnout related problems and how long should doing hobbies be conducted for a week. (5) to know if hobbies impact the three dimensions of well-being positively. The findings of this study will fill in the gap of hobbies as an effective way to prevent, deal with, and eliminate burnouts among STEM students as well as its benefits.

#### *Significance of the study*

The study aimed to investigate all of the benefits of having hobbies that can help students face different academic burnout problems. The researchers also tried to discover why the most dominant recreational activity of the students benefits them in the overall combatting of academic burnouts. The data

that will be elaborated in this study shall be beneficial to the following entities.

For high school students, they will be the main emphasis of the study since this will help them to avoid experiencing academic burnouts. Furthermore, the best hobbies that the researchers will be undermining will assist the learners in dealing with the pressure of academics. Hence, academic-caused physical, mental, and emotional problems will be avoided and will help students to become more engaged when learning.

For the parents, the worries of parents regarding their child's health, especially about the problem of having academic weariness will be reduced, if the study is taken into consideration. Furthermore, the probability of their children having physical and mental dilemmas will also drop.

For the teachers, this will help their learners to become more engaged in classes and create a better student-teacher connection when class sessions are ongoing. Furthermore, the focus of the teachers while teaching will not be affected if students will develop different hobbies that combat academic fatigue.

For Letran-Bataan, the study of the researchers may be utilized to improve the learning experience of learners in the future and especially in this new normal situation.

For future research students, the research study may be used as a reference when grasping information on how hobbies help learners deal with academic stress. The study can also be developed into qualitative research that will focus more on the experiences of learners that suffered the dilemma of the topic.

#### *Scope and Limitation*

This study focused on determining the most effective hobbies in eliminating academic burnout among the senior high school STEM students in Colegio de San Juan de Letran-Bataan. It was conducted to know the best-chosen hobbies among the students and sought if hobbies were indeed helpful for students when facing, avoiding, and recovering from academic

burnouts. Information such as grades of the learners was not a part of the study and only focused on the hobbies that the learners take into practice, especially when experiencing academic burnouts. Furthermore, the participants were only limited to the Senior High School STEM students of Colegio de San Juan Letran-Bataan.

## METHODOLOGY

This section was the researchers' guide to undermine the different hobbies that learners practice, do hobbies have benefits to learners, and the best hobby to do to help avoid academic burnouts. Furthermore, this section will introduce the research design, sample, sampling method, study site, instruments that were used, and the ethical considerations before the researchers conducted the study.

### *Research Design*

The problems experienced by lots of learners nowadays are burnouts, specifically academic burnouts. Academic burnouts were considered to be a hindrance for learners due to overwhelming amounts of unreleased physical, mental, and emotional stress that was built up in a learner's body over time which results in the lack of productivity of students as well as mood swings. Since hobbies are one of the effective things to practice when experiencing stress, and the researchers have thought that hobbies can work against academic burnouts, so the researchers conducted this study as non-experimental research, which sought the most common and the most favored hobbies of the students, the benefits of hobbies to deal, prevent, and recover from the burnout dilemma of the learners, and sought what will be the best hobby to do if a learner does experience academic burnouts and needs to recover from it. Furthermore, this non-experimental research study will be a correlational research study since the aims of the researchers were to undermine knowledge about the relationship of hobbies on reducing academic burnout problems through the responses of the respondents, which are the learners, without conducting any experiments. Moreover,

this study focused more on the experiences, opinions, and attitudes of the respondents on how hobbies help them to deal with, recover, and avoid academic burnouts which were necessary for this study. The research design that was followed by the researchers were deemed to be the effective way of conducting this study, solve the academic burnout dilemma, identify the relationship of hobbies on reducing academic burnouts, and helping the learners who are often confronting such a problem since the respondents' answers were based on their experiences and thoughts about the dilemma, which then aided the researchers on the development of a reliable conclusion.

### *Subject and Study Site*

The researchers' chosen participants were the population of the Senior High School STEM Students of Colegio de San Juan de Letran - Bataan. Since the Senior Highschool STEM students have been identified to experience a lot of stress due to the demands towards school works. The Senior High School STEM students may have experienced academic burnout from time to time which made the said learners the ideal respondents to participate in the study. The researchers utilized the non-probability sampling method to build reliable data that was crucial for the success of this study. The type of non-probability sampling method that was used in this study was the quota sampling method, since the gathering and contacting of the respondents became difficult due to the COVID-19 pandemic, so the researchers utilized the willing respondents to gain reliable results.

### *Instrument*

The researchers used a survey as their instrument, which consists of four (4) parts. Part I of the research instrument consists of the profile of the respondents, such as grade level, age, and sex of the respondents. Part II of the instrument consisted of the Likert Scale which focused on recognizing the academic burnouts of the respondents, the questions are then about the symptoms that they might have experienced, to know

if they have experienced the burnout problem. Furthermore, part III of the survey has questions that helped the researchers know what type of hobbies the learners are doing, the type of hobbies are as follows enrichment hobbies, sports hobbies, creative hobbies, social activities, collecting, and outdoor hobbies. Then, follow-up questions were presented, that asks the respondents what was their two (2) most preferred hobbies and how many hours do they spend on their hobbies per week. Part IV then consisted of (2) two Likert Scales, which questioned the respondent's experiences with hobbies, academic burnouts, and both. The Likert Scales were utilized to measure how the respondents agree or disagree on the questions that were presented to them, which then has four different points: (1) Strongly disagree, (2) Disagree, (3) Agree, and (4) Strongly agree. The whole survey contains forty-one (41) questions and typically lasted for almost five (5) minutes only.

#### *Data Gathering Procedure*

The researchers communicated to the respondents first of all, and asked for their time and cooperation, to conduct the survey. The respondents had the right to not participate to the study, but they were highly encouraged to do so, since this helped the researchers in accomplishing the study and only their opinions were needed on this study, so the survey did not take much of their time. The researchers explained the study and have eliminate all of the respondents' questions and doubts about the study as well as about the survey. The survey then started with some reminders that followed anonymity and confidentiality before the respondents started answering the survey. Once the learners were done answering the survey, the answers of the respondents which are crucial to the study were then stored on the google forms, where the researchers have examined all of the responses that were done by the learners that have participated the said study.

#### *Data Analysis*

The researchers collected the necessary data from the respondents and utilized the Likert scale to gather the opinions

of the respondents about the questions related to this study, which was used for the data analysis of this study as well as the SPSS for the data analysis of the study. For the coding system, the various symptoms of academic burnouts were included as well as the hobbies were numbered from 1 to 6 in correspondence to the type of hobbies' letters in the survey. The types of hobbies that were included were, enrichment, sport, creative, social, collecting, and outdoor hobbies. Data tabulation occurred once the data was obtained, the contents of the table included the sex, age, and year level of the respondents, the table also included the aforementioned type of hobbies. The researchers will analyze the data through the use of frequency distribution. Since the Likert scales were utilized in this study, the frequency distribution was utilized by the researchers, since a measurement scale was used in the survey. The researchers determined the effectiveness of hobbies by the use of the Likert scales, as well as to know how frequently do the respondents experience academic burnouts based on the symptoms that they have experienced, which was included in the survey. The statistician then recommended the use of the SPSS to analyze the data and utilized the Shapiro-Wilk test for normality on the analysis of the data.

#### *Ethical Considerations*

The researchers' objective was to know how to eliminate academic burnout through hobbies and know what are the benefits as well as the favored activities by the learners. To ensure the privacy and anonymity of the participants. On the demographic part, the name was set to optional so the participants can answer the survey anonymously, if ever the participants have included their names, only the researchers were the ones who saw and knew their names as well as their answers on the survey. Furthermore, all of the participants were not forced to take part in the study. The participants had the right to refuse to answer the survey if they were uncomfortable about the topic.

**RESULTS**

This section presents the results of the survey done by the researchers to the senior high school students. In addition, data about academic burnout symptoms, hobby preferences, and the relationship about hobbies and academic burnouts will be presented in this section.

*Part 1. Demographic Profiles*

Table 1. Demographic Profile According To Grade Level

Grade Levels	Frequency	Percent
Grade 11	57	63.3%
Grade 12	33	36.7%
<b>Total</b>	<b>90</b>	<b>100.0%</b>

The first table of the demographic profile is the grade levels of the respondents. The grade 11 respondents have a frequency of 57 and a has 63.3 percentage. While for the grade 12 respondents, the frequency was 33 and has a 36.7 percentage, which was lower than the grade 11 respondents.

Table 2. Demographic Profile According to Age

Age range	Frequency	Percent
15.00	1	1.1%
16.00	32	35.6%
17.00	44	48.9%
18.00	13	14.4%
<b>Total</b>	<b>90</b>	<b>100.0%</b>

On the other hand, the age section of the illustrated demographic profile had a respondent who is 15 years old, so the age of 15 years old had a frequency of 1 and had a 1.1 percentage. On the contrary, the age 16 years old gained a frequency of 32 as well as a 35.6 percentage. Also, the age of 17 years old had the highest frequency which was 44, and had a

48.9 percentage, which was the highest recorded percentage on the age section of the demographics. Age 18 then had a frequency of 13 and had a 14.4 percentage.

Table 3. Demographic Profile According to Sex

Sex	Frequency	Percent
Male	41	45.6%
Female	49	54.4%
<b>Total</b>	<b>90</b>	<b>100.0%</b>

Lastly, the sex section of the demographic profile had a 41 frequency and had a 45.6 percentage for the male respondents. While on the contrary, female respondents had a frequency of 49 and had a 54.4 percentage, which is slightly higher than the male respondents.

*Part 2. Learners' Academic Burnout Symptoms*

Table 4. Academic Burnout Determinator Likert Scale

Questions	Median	IQR	Interpretation
1. Have you experienced exhaustion in doing school works?	4	4 ± (5 - 4) [5,3]	Almost Every time
2. Have you experienced lack of interest in school tasks and activities?	4	4 ± (5 - 3) [6,2]	Almost Every time
3. Have you experienced missing or failing to attend a class?	3	3 ± (3 - 2) [4,2]	Occasionally/ Sometimes
4. Have you experienced over workload with lack of sufficient rest?	4	4 ± (5 - 4) [5,3]	Almost Every Time

---

5.	Have you experienced frequent exhaustions?	4	$4 \pm (5 - 4)$ [5,3]	Almost Every Time
6.	Have you experienced frequent body aches?	4	$4 \pm (5 - 3)$ [6,2]	Almost Every Time
7.	Have you experienced feelings of negativity, loneliness, helplessness?	4	$4 \pm (5 - 3)$ [6,2]	Almost Every Time
8.	Have you experienced lack of satisfaction on oneself due to school demands?	4	$4 \pm (5 - 3)$ [6,2]	Almost Every Time
9.	Have you experienced depression due to school related reasons? (School works, activities, and etc.)	3	$3 \pm (4 - 2.75)$ [4.25, 1.75]	Occasionally/ Sometimes
10.	Have you experienced lack of productivity?	4	$4 \pm (5 - 3)$ [6,2]	Almost Every Time
11.	Have you experienced the lack of sense of responsibility?	4	$4 \pm (5 - 3)$ [6,2]	Almost Every Time

---



---

12.	Have you experienced relying on different substances (e. g. stimulants like nicotine, large amounts of caffeine, and etc.) to deal with the huge amounts of stress?	1	$1 \pm (2 - 1)$ [2,0]	Never
13.	Have you vented out your frustrations on others?	3	$3 \pm (3 - 2)$ [4,2]	Occasionally/ Sometimes
14.	Have you experienced academic burnouts more often on busy weeks (e. g. exam week)	4	$4 \pm (5 - 3)$ [6,2]	Almost Every Time
15.	Have you experienced academic burnouts more often, when you lack sufficient rest?	4	$4 \pm (5 - 3)$ [6,2]	Almost Every Time

---

Based on the table above, on Question 1 and 2, almost every time, the respondents have experienced exhaustion and lack of interest in doing school tasks and activities. On Question 3, occasionally, the respondents experienced missing or failing a class. On Question 4, almost every time, the respondents have experienced workload with lack of sufficient rest. On Question 5, the respondents have indicated they have experienced frequent exhaustion since the response was mostly almost every time. On Question 6 the respondents have experienced frequent body aches almost every time. On Question 7 the respondent experienced a lack of satisfaction with oneself due to school

demands almost every time. For Question 8, almost every time the respondents experience depression due to school related reasons. For Question 9, Occasionally, the respondents have experienced depression due to school-related reasons. For Questions 10 and 11, almost every time, the respondents have experienced a lack of productivity and a sense of responsibility. For Question 12, the respondents never experienced relying on substances to cope with stress. For Question 13, the respondents occasionally vented their frustration onto others. For Question 14 and 15, the respondents have experienced academic burnout almost every time on busier week especially they lack sufficient sleep.

Based on the results the respondents have experienced factors that may be associated with academic burnout. The effects of academic burnout can lead to mental, emotional, and physical pain towards the respondents. However, the respondents never used any substances to cope with stress. The frequent exhaustion and lack of sufficient rest are factors on experiencing that may have led to lack of interest and accomplishment of the respondents due to the school demands. Furthermore, the respondents occasionally experienced depression, missed or failed a class, and vented their frustration to others. The respondents have experienced academic burnout based on the results that mostly indicate almost every time.

*Part 3. Types of hobbies and duration*

Table 5. Hobbies Selection

Hobbies Selection	Frequency	Percentage
Enrichment Hobbies	82	91.1%
Sport Hobbies	40	44.4%
Creative Hobbies	39	43.3%
Social Activities	63	70.0%
Collecting	25	27.8%
Outdoor Hobbies	28	31.1%
<b>Total no. of respondents</b>	<b>90</b>	<b>100.0%</b>

In the enrichment hobbies category, 82 out of 90 of the respondents participate in such activities. Which has an equivalent percentage of 91.1%. On the other hand, in the sports hobbies, category 40 out of 90 of the respondents participate in such activities. Which has an equivalent percentage of 44.4%. Additionally, in the creative hobby category, 39 out of 90 of the respondents participate in such activities. Which has an equivalent percentage of 43.3%. Also, in the social activity category, 63 out of 90 of the respondents participate in such activities. Which has an equivalent percentage of 70.0%. Furthermore, in the Collecting category 25 out of 90 of the respondents participate in such activities. Which has an equivalent percentage of 27.8%. Lastly, in the outdoor hobbies, category 28 out of 90 of the respondents participate in such activities. Which has an equivalent percentage of 31.1%.

Table 6. The most favored hobby.

Most favored hobby	Frequency	Percentage
Enrichment Hobbies	52	57.8%
Social Activities	14	15.6%
Sport Hobbies	9	10.0%
Creative Hobbies	8	8.9%
Outdoor Hobbies	4	4.4%
Collecting	3	3.3%
<b>Total</b>	<b>90</b>	<b>100.0%</b>

Table 7. The second most favored hobby

Top 2 Hobbies	Frequency	Percentage
Social Activities	38	31.1%
Enrichment Hobbies	23	25.6%
Creative Hobbies	16	17.8%
Sport Hobbies	12	13.3%
Outdoor Hobbies	6	6.7%
Collecting	5	5.6%
<b>Total</b>	<b>90</b>	<b>100.0%</b>

The top 1 hobby chosen by the respondents is Enrichment Hobbies, which got a frequency of 52 and has an equivalent percentage of 57.8%, followed with Social Activities, which got a frequency of 38 and has an equivalent percentage of 31.1%.

Table 8. Durations of recreational Activities

Hours per week	Average hours per range	Frequency	Percentage
1 - 10 hours	7 hours	1	34.4%
11 - 20 hours	16 hours	19	21.0%
21 - 30 hours	25 hours	22	24.4%
31 - 40 hours	36 hours	7	7.7%
41 - 50 hours	50 hours	3	3.3%
51 - 60 hours	56 hours	6	6.6%
61 - 70 hours	63 hours	1	1.1%
71 - 80 hours	n/a	0	0%
81 - 90 hours	83 hours	1	1.1%
91 - 100 hours	99 hours	2	2.2%
<b>Total</b>		<b>90 responses</b>	<b>100.0%</b>

Based on table 8. seen above, the highest average hours that the respondents have answered were about 25 hours per week, followed by 16 hours per week, and 36 hours per week, when the learners were practicing their preferred recreational activities per week. Based on the responses, about 21-30 hours of recreational activities were the hours that have garnered the most responses according to the senior high school STEM students based on their experiences, which was then followed by 11-20 hours of recreational activities. The data above shows that the most optimal number of hours of recreational activities for a senior high school student was about 11-20 hours and 21-30 hours of recreational activities.

Part 4. Views on hobbies and academic burnout.

Table 9. Perspectives on hobbies and academic burnouts.

Part 1				
Questions	Median	IQR (Interquartile range)	Interpretation	
1. Hobbies help me avoid academic burnouts.	4	$Md_{(P75-P25)}^+$ 4 <sup>+</sup> (4 - 3) [5,3]	Strongly Agree	
2. Hobbies help me avoid academic burnouts, even if I lack enough rest.	3	$Md_{(P75-P25)}^+$ 3 <sup>+</sup> (4 - 3) [4,2]	Agree	
3. Hobbies help boost my physical health	3	$Md_{(P75-P25)}^+$ 3 <sup>+</sup> (4 - 3) [4,2]	Agree	
4. Hobbies help boost my mental health.	4	$Md_{(P75-P25)}^+$ 4 <sup>+</sup> (4 - 3) [5,3]	Strongly Agree	
5. Hobbies help boost my emotional health.	4	$Md_{(P75-P25)}^+$ 4 <sup>+</sup> (4 - 3) [5,3]	Strongly Agree	
6. Hobbies help me deal with academic burnouts.	3	$Md_{(P75-P25)}^+$ 3 <sup>+</sup> (4 - 3) [4,2]	Agree	
7. Hobbies help me recover from academic burnouts, even if I lack enough rest.	3	$Md_{(P75-P25)}^+$ 3 <sup>+</sup> (4 - 3) [4,2]	Agree	
8. Hobbies help me recover faster from academic burnouts.	4	$Md_{(P75-P25)}^+$ 4 <sup>+</sup> (4 - 3) [5,3]	Strongly Agree	
9. Hobbies help me to be productive again when I experience	3	$Md_{(P75-P25)}^+$ 3 <sup>+</sup> (4 - 3) [4,2]	Agree	
10. Overall, hobbies help me to be better academically.	4	$Md_{(P75-P25)}^+$ 4 <sup>+</sup> (4 - 3) [5,3]	Strongly Agree	
Part 2				
Questions	Median	IQR	Interpretation	
11. When I experience academic burnouts, hobbies help me to deal with it.	4	$Md_{(P75-P25)}^+$ 4 <sup>+</sup> (4 - 3) [5,3]	Strongly Agree	

12. When I try to recuperate from academic burnouts, hobbies play a vital role on my recovery.	3	$Md_{-(P75-P25)}^+$ $3^{\pm} (4 - 3)$ [4,2]	Agree
13. When I lack sleep, hobbies help me recuperate from academic burnouts.	3	$Md_{-(P75-P25)}^+$ $3^{\pm} (4 - 2)$ [5,1]	Agree
14. When I have experienced academic burnouts, hobbies help me to do well on my studies again.	3	$Md_{-(P75-P25)}^+$ $3^{\pm} (4 - 3)$ [4,2]	Agree
15. When I try to prevent academic burnouts, hobbies play a vital role on the prevention of academic burnouts.	3	$Md_{-(P75-P25)}^+$ $3^{\pm} (4 - 3)$ [4,2]	Agree
16. When I try to prevent academic burnouts, especially if I lack enough rest, hobbies play an important role on the prevention of it.	3	$Md_{-(P75-P25)}^+$ $3^{\pm} (4 - 3)$ [4,2]	Agree
17. When I practice my hobbies, it helps with my emotional well-being.	4	$Md_{-(P75-P25)}^+$ $4^{\pm} (4 - 3)$ [5,3]	Strongly Agree
18. When I practice my hobbies, it helps with my mental well-being.	4	$Md_{-(P75-P25)}^+$ $4^{\pm} (4 - 3)$ [5,3]	Strongly Agree
19. When I practice my hobbies, it helps with my physical well-being.	3	$Md_{-(P75-P25)}^+$ $3^{\pm} (4 - 3)$ [4,2]	Agree
20. All in all, when I practice my hobbies it helps me to do well in school matters.	3	$Md_{-(P75-P25)}^+$ $3^{\pm} (4 - 3)$ [4,2]	Agree

The two tables were the results of the last part of the survey that was conducted by the researchers to the senior high school STEM students of Colegio de San Juan de Letran-Bataan, the first part of this questionnaire section where the main questions for the respondents and the second part were used to ensure that all of the responses of the respondents were

answered properly. To summarize these, the two tables were mainly used by the researchers to know the relationship between hobbies and academic burnouts. In terms of avoiding academic burnouts based on the tables above, hobbies played a huge role in the prevention of academic burnouts, since most of the respondents have answered strongly agree and agree about this topic. However, hobbies slightly became less effective if the students were sleep-deprived, but hobbies still work as a way to prevent academic burnout, since most of the respondents have agreed about this set of questions. Furthermore, when dealing with academic burnouts, hobbies again play an important role when students were currently experiencing academic burnout (too much physical, mental, and emotional stress and lack of sleep) considering that most of the responses that were gathered were strongly focused on agree and strongly agree.

As for the benefits of hobbies when burnout-related problems occur, hobbies were viewed as a really important activity for students. First of all, based on the experiences of the learners, they indicated that hobbies were deemed to be helpful when recovering from academic burnouts, especially when experiencing sleep-deprivation since respondents mostly agreed about the statements that were presented to them. Furthermore, the learners also indicated that hobbies help them to recover faster when they have experienced academic burnouts, considering that this topic mostly garnered strongly agree and agree responses from the learners. In terms of the respondents' productivity after experiencing the horrendous effects of academic burnouts, the respondents have specified that by doing their hobbies they can become productive again on doing school works since most of the responses answered agree. By partaking in hobbies, both of the respondents' mental and emotional health was having major improvements when doing their preferred recreational activities, the respondents have mostly answered strongly agree in terms of these two branches of their well-being. In addition, the respondents' physical well-being was also having improvements, but not as

well as the other two branches of the respondents' well-being, since questions about these had agree responses.

According to the respondents, hobbies were overall important and helpful to their student lives. Since most respondents have answered strongly agree and agree about the overall views about hobbies and their helpful benefits while having experienced academic burnouts and doing their tasks as students.

## DISCUSSION

This section will tackle the interpretation of the researchers towards the result of this study. This study was conducted to determine the correlation between academic burnout and hobbies to know if hobbies can help STEM students to prevent, deal with, and recover from their academic burnout.

### *Demographic Profiles*

The researchers have gathered 90 respondents in total. Grade 12 had lesser respondents than grade 11 respondents since most of the participants came from grade 11. Male respondents are significantly fewer than the female respondents since the female respondents were about more than half of the total number of respondents. In the age section, most respondents were 17 years old, the second was the age 16, the third was the age 18, and the fourth was the age 15 that only had one respondent.

### *Learners' Academic Burnout Symptoms*

Based on the academic burnout determinator that the researchers made, they have found out the results indicated the respondents have experienced factors of academic burnout such as exhaustion, lack of interest in school tasks and activities, lack of rest, and the effects of academic burnout such as lack of productivity and dissatisfaction on oneself due to school demands almost every time. Occasionally, the respondents experienced depression, vented their frustration, and missed or failed a class because of their academic burnout. Fortunately,

the chances of learners relying on abusive substances are low, possibly because the learners give their time to do their hobbies and they know the substances can be dangerous to their health. Based on the results, the researchers have met their expectations in their theoretical framework, because the sleep, physical, and mental health of the learners were heavily affected by their academic burnout.

The results were inclined with the study of Pagnin & de Querioz (2015), measuring factors of burnout and sleep difficulties that have affected premedical students since the stressful situation can affect their health. There were also signs that the decrease in their physical health was associated with fatigue and a low sleep schedule. The distress can lead to having difficulties sleeping. Hence, the students with a low sleep schedule have a high tendency to have high levels of burnout. When dealing with stress in school-related activities, the students experience consequences such as physical pains such as aches around the body and insufficient sleep due to busy schedules, demanding school works such as excessive homework, and academic stress. A student with insufficient sleep may be more prone to experience high levels of depression and anxiety due to the lack of preparation, fear of failure, and pressure they are receiving from peers, family, and the school. Hence, because of anxiety and depression, they can experience a high level of irritability and it may also lead to the students' low school performances (Blazer, 2010). While the previous study focuses on the influence of sleep and burnout on premedical students, the result of this study demonstrates the correlation between burnout and hobbies.

### *Hobby Preferences*

According to the results, a big majority of the respondents do enrichment hobbies, this is perhaps because it is limited to simple activities such as reading a book or watching TV. Followed by social activities, the second to the last of the results are outdoor-related hobbies while the last one was collecting. People tend to do hobbies not because it pays but it serves as a stress reliever, helps pass time, and improve living,

the most common one requires to be mentally related, enrichment to be specific. Studies have shown that reading a book can help the mind focus well, improve vocabulary, and sharpens comprehension. Playing an instrument, such as a piano can increase cognitive development, improve hand-eye coordination and fine motor skills. Learning a new language can help a person be more decisive and can help in speaking people's native languages better, in addition to that, it can help in being perceptive and can help reduce the risk of dementia. (Fabrega). A possibility as to why social activities are the second in most frequented hobbies is that being social can have its benefits such as, reduces the chance of getting Alzheimer's disease and dementia, reducing the risk of mental disorders such as depression. Socializing can also improve the connection with peers, family, and the community. Another benefit to one's self is enhanced self-esteem, improved mental health, and social skills, as well as having a positive attitude (Vincent, 2015).

The possibility that the top 1 is enrichment hobby, followed by Social Activities, is that enrichment hobby can just be as simple as reading a book or watching TV, as long as some level of mental capacity is used and can most commonly be done alone. Social activities, on the other hand, is something people do every day, something that cannot be avoided doing in a person's everyday life.

#### *Recommended duration of hobbies per week*

The number of hours the respondents spend time within their hobbies vary, from 3 hours being the shortest while 100 hours being the longest. Noticeably, among the data is that a good portion of the respondents have chosen 11-20 hours and 21-30 hours, with an average of 16 and 25 hours respectively, and a frequency of 19 and 22 respectively. With that, 11-20 hours account for a percentage of 21.0% while 21-30 hours account for a percentage of 24.4%. A survey was conducted within the U.S population, from 15 years of age and younger to 75 and older. Within the age range of 15-19, it shows that the average number of hours that a teenager spends on hobbies is 37.38 hours per week (Lock, 2020). Even though the average

time spent doing hobbies is 37 hours, while 21-30 hours has the second-highest frequency while also being closest to the average, this is perhaps be caused by the high demands of school work the respondents have to comply to. According to a study, too much workload can lead to greater stress. According to survey data, 56 percent of the students considered homework a primary source of stress, followed by the pressure of getting good grades in particular subjects with 33 percent. Students that said homework was not a stressor only had less than 1 percent of the students. Also, according to a study that less time for friends, family, and extracurricular pursuits. Both the survey data and student responses indicate that students spend most of their time completing homework. One of the reasons why students were more likely to drop activities, not see friends or family, and not pursue their hobbies or interest, according to the researchers (PARKER, 2014)

Homework tends to act as a stressor among students' lives' although research has shown that some level of stress is healthy chronic stress can induce physical, mental, and behavioral effects. The researchers have surveyed over 4,000 students to study the effects of the additional academic load homework cause. Behavioral questions such as "How often do you try as hard as you can in school." And "How often do you complete your school assignments." The mental and physical aspect contains questions like, "How often do you feel stressed about your academic experience?" as well as stress-related health problems which can include headaches, weight gain, and sleep difficulties. Many of the students have experienced stress, compromised health, and a lack of balance. Only 6% of students state that the homework is "Very Useful" in preparation for learning, tests, papers, or projects. Students also say things like "There's never a time to rest, there's always something more you should be doing;" "It can feel like you are drowning;" and "My body crashes when I've done maybe half of my homework." Based on student feedback, it is being speculated that homework overload can limit the person's capacity to learn. It can even be counter-productive. It doesn't mean that

more work is given means the students learn more. (Stegner, 2018).

Based on the observations done, students have a big workload of academic work to be done, the respondents seek shelter in hobbies, let it be reading a book or playing games. It can even be spending time with other people to cope with stress, like family. But due to the aforementioned workload, the respondents have little time to spend with their hobbies which resulted in the below number of hours spent with hobbies.

#### *Prevention of academic burnouts through hobbies*

Based on the results acquired by the researchers, there has been a significant relationship between the prevention and recovery of academic burnouts by utilizing hobbies. In terms of the prevention of academic burnouts, hobbies are considered as one of the best ways to prevent learners from amassing stress that can result in academic burnouts due to different reasons, like examination weeks, having too many requirements, and other burnout related causes, according to the results presented above. The effectiveness of hobbies as prevention to academic burnouts reduces gradually if a learner is identified to be having sleep-deprivation. However, hobbies can still be a helpful activity in the prevention of academic burnouts, even if a learner was identified to be as someone who experiences sleep-deprivation based on the results acquired by the researchers since most learners agreed that hobbies are still effective, even if when learners experience sleep deprivation.

The main reason why hobbies work as one of the ways to prevent academic burnouts is due to its capability to release stress, since the learners' body acts as the absorber of different types of stresses, mainly mental, emotional, and physical stress, so hobbies are activities that can help exude the built-up stress inside the body because of its stress-fighting abilities, which can therefore be a way to prevent the growth of overwhelming stress inside the body. The researchers met their expectations in terms of the stress-reducing capability of hobbies and according to a previous study done about the effects of engaging in hobbies on both the psychological and physiological well-being

of a person, study shows that stress can be prevented and controlled if a person has hobbies and does it regularly. Furthermore, restorative hobbies which are the type of hobbies that requires a small amount of mental effort are the best type of hobbies to partake, since it boosts the overall well-being of a person, and especially when stress build-up is escalating or there is a need to release unreleased stress from the body. Aside from restorative hobbies, the preferred type of leisure activities of a person such as socializing, physical development hobbies, outdoor hobbies, and other preferred types of hobbies also acts similarly as the restorative hobbies, since preferred hobbies also act as "restorers". According to the study, preferred type of hobbies can also boost the overall well-being of a person, while releasing the stress that was formed inside a person's body. Additionally, preferred type of hobbies can create a break-like feeling and gives pleasure to a person if he/she does his/her hobby preference, which is then stated to reduce stress (Pressman, et al., 2009).

Based on this study's results and the previous study from 2009, it shows that the findings that the researchers acquired were similar to the previous study done, and shows that due to the stress-releasing abilities of the different types of hobbies, multiple and different types of stressors that can cause academic burnouts can be prevented. Hobbies combat burnouts by quickly releasing the stress absorbed by the body throughout the day or by a certain period, which therefore lowers the chances of stress to become overwhelming, since academic burnouts can be acquired if overwhelming stress is found on a person's body. Furthermore, by reducing the stress acquired in such a fast phase, hobbies prevent the chances of stress from accumulating, which proves that hobbies can prevent academic burnouts. Additionally, based on the previous study restorative hobbies or enrichment hobbies (in this study) are shown as the best type of hobby to partake, to quickly and efficiently release stress inside a learner's body. Unexpectedly, all types of hobbies can work to release stress efficiently, as long as a certain type of hobby is preferred by a person or a learner.

### *Dealing with academic burnout and recovery*

Aside from the prevention of academic burnouts by utilizing different types of hobbies, dealing with academic burnouts was also one of the focuses of this study. When academic burnouts are present on a learner, hobbies can assist an affected learner by boosting his/her recovery rate and when dealing with the various effects of the burnout problem such as lack of interest, low motivation, and other horrendous effects of academic burnout to the way of thinking of a learner, which were seen on the results of the academic burnout determinator. Additionally, when academic burnouts happen, a learner is already sleep-deprived, but if the deprivation continues while a learner is already on his/her recovery stage hobbies can still be one of the ways to recover from academic burnouts. Furthermore, hobbies were also found as a way for learners to help them to be productive again, when learners have recovered from academic burnouts, which then can help learners to do their assigned tasks again efficiently, due to the positive changes that recreational activities were able to provide to the physical, mental, and emotional well-being of students.

Based on the previous researches about recovering from burnouts caused by chronic work stress, there are 2 types of recovery a worker can apply when one does experience burnout. The first type of recovery is called the "internal recovery", this type of recovery is a way to relieve small amounts of stress while still working. Internal recovery mostly consists of short activities like short breaks and various breathing exercises that can reduce a small amount of stress, while a person is still at work. On the contrary, external recovery is the type of recovery that can be done after working hours, which are mainly the tasks or activities that a person likes to do, but are not work-related tasks. The best way to recover from burnouts is to not ponder about the problems in one's workplace and the problems as well as the complaints at and about work, since this will allow a person's mind to relax because thinking about work while a person is trying to recover from burnout can rather increase the stress even more that he/she has acquired during the day rather than decreasing it

and extracting it from the body while resting. Additionally, the best ways to avoid thinking about work are by relaxing, mastering something not work-related, and controlling one's time for a person to do the personal things he/she wants to do and spend time about it. Hobbies are one of the best ways to psychologically become detached from work since hobbies can help a person to relax, master something new, and do the things a person does want to do in his/her leisure time. Furthermore, doing one's hobbies can be recognized as an external recovery since hobbies can help a person to forget about one's problems for a shorter or longer period, depending on how much time a person has (Samra, 2020). In addition to this, psychologists had also prescribed that there are ways that can be applied to oneself to recover from burnout. Psychologists added that alongside a healthy diet, enough sleep, and regular exercise that can boost a person's stamina to recover from burnouts, hobbies can also help a person to recover by being a stress-reliever since hobbies can provide a person a state of freedom from daily problems, to rejuvenate the body, and bring relaxation to the body and the different states of a person's well-being. Furthermore, a person needs to change his/her perspectives and mindset to fight the various symptoms of burnout, such as feeling cynical and feeling negative, since a change from a negative perspective on life to a more positive and bright perspective is needed for a well and steady recovery from burnouts (Stoewen, 2018).

The aforementioned studies indicate that hobbies can be a part of the solution when dealing and recovering from various types of burnouts, alongside enough sleep and exercise as well as a balanced diet. The main reason why doing hobbies benefit a person when dealing with, and recovering from burnouts is due to the ability of hobbies to help a person's mind to forget about his/her problems for some time while doing the said activities, which helps a person's recovery since the mind is not processing any more stressors and prevents stress from increasing again inside the body. Additionally, hobbies have the ability to change a person's perspectives and mindset, because of their ability to clear a cluttered mind of a person to

have a more relaxed mind, which is needed for a faster recovery.

#### *Hobbies improve overall health*

Aside from the ability of hobbies to prevent and help learners deal with academic burnouts, the three dimensions of a person's wellness which are physical, mental, and emotional health were also influenced positively by hobbies, based on the respondents' experiences. Both emotional and mental health were benefitting greatly based on the responses of the learners that have participated in the study, which are hugely important to combat and recover from academic burnouts since immense mental and emotional stress are the main reasons why a learner can experience the horrible effects of academic burnout. In addition, the physical health of a learner does benefit from practicing recreational activities, since upon observing the results, learners also indicated that their physical well-being was having good developments. As observed from the garnered results, the main reason why the physical health of the respondents was only having good developments, unlike the mental and emotional health that were having great developments was due to the reason that there were learners that were not fond of sports or physical development activities, like exercising or working out. Hobbies can lead to better well-being, which can help a learner to have a healthy well-being that can confront the different types of stress better and help learners to remain feeling great, even when overwhelming amounts of stress will be absorbed by the body. The researchers have noticed good and great results on how hobbies boost their three dimensions of well-being.

Results on this study and related various studies were seen to have been parallel, according to the researchers. A study claims that hobbies are not only viewed as a way to relieve stress but also helps the different dimensions of a person's well-being, which is another benefit of doing hobbies. In terms of physical well-being, better cognitive skills, better body mass index, better functioning of the heart and other body organs were the results of doing hobbies regularly. Additionally, a

person's mental well-being can also be having improvements when doing hobbies, such as lower risks of depression and anxiety, and it also gives the mind to have a reset from the mind-boggling tasks that a person does experience daily. Lastly, hobbies also help a person to be in a good mood, have higher esteem, and feel accomplished, which falls into the development of the emotional well-being of a person and reduces loneliness, lack of self-esteem, and the feeling of lacking achievements, since these can stress the emotional well-being of a person (Kettering Global, 2019). The data and the previous study contribute a clearer understanding that hobbies can also aid a person's well-being, and hobbies also have other benefits for learners aside from the avoidance and recovery of burnout problems.

Overall, based on the result and the previous studies made about the relationship between hobbies and academic burnouts, the researchers have determined that there is a great need for learners to do their hobbies and have time to do these activities. The researchers have recognized clearly that hobbies are important whether when dealing with or recovering from academic burnouts. Additionally, there were also lots of health benefits found that hobbies can provide, which can also help learners to have good overall health and enjoy their respective lives.

## **CONCLUSION**

This research aimed to determine the various hobby types done by the learners, as presented above enrichment hobbies and social hobbies became the 2 most favored hobby types by the respondents. In terms of dealing, preventing, and recovering from academic burnouts, hobbies were proven to be helpful when a person is either dealing, preventing, or recovering from burnouts. The best type of hobby that a learner needs to do when experiencing one of the 3 situations related to academic burnouts is enrichment hobbies, especially if a learner does not have a preferred hobby. But, if a learner does have a preferred hobby, all of the hobby types can work as well as enrichment hobbies. Furthermore, aside from hobbies

confronting academic burnouts, the three dimensions of health which are physical, mental, and emotional health of the learners can have positive developments, if one does his/her hobbies regularly. Overall, the results of this study highly suggest that hobbies can be a way to prevent, deal with, and recover from academic burnouts.

From the findings of this study, the recommendations are as follows:

Students should pick their hobbies and practice them regularly, especially after having a stressful task, day, or week.

The amount of homework and other school tasks should be regulated for students to have time for themselves and practice self-care.

Aside from avoiding, dealing with, and recovering from academic burnouts by the use of hobbies having a balanced diet, enough sleep, and regular exercise can help students face various burnout problems.

This study has addressed the lack of both local and foreign studies on fighting academic burnouts by utilizing hobbies and based on the whole work of the researchers, hobbies are proven to help students face any academic burnout problems and avoid it. Based on the theoretical framework of the study, the researchers' theory about academic burnouts and countering it and recovering by using hobbies was identified to be correct. The researchers' have thought that this theory and study can also help learners who are identified to be having a horrible lifestyle.

## REFERENCES

- Andreas Pavlakis, D. K. (2012). Burnout Syndrome in Students of a Distance Learning Program: The Open University of Cyprus Experience. *European Journal of Open, Distance and E-Learning*, 10.
- Brazier, Y. (2018, February 1). *What is psychology and what does it involve?* Retrieved from MedicalNewsToday: <https://www.medicalnewstoday.com/articles/15487>
- Carmen Vizoso, O. A.-G. (2019). *Exploring coping mechanism and optimism as predictors of academic burnout and performance among university students*. Retrieved from <http://www.jehp.net/article.asp?issn=2277-9531;year=2019;volume=8;issue=1;spage=201;epage=201;aulast=Rahmatpour#:~:text=Several%20studies%20indicated%20that%20academic,barrier%20in%20their%20academic%20achievements.&text=Furthermore%2C%20it%20can%20cause%20>
- Chiara Dall'Ora, J. B. (2020). Burnout in nursing: a theoretical review. *Human Resources for Health*, 1 -17.
- Christina Maslach, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, 103 -111.
- Christina Maslach, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, 103 - 111.
- Cigdem Atalayin, M. B. (2015). The prevalence and consequences of burnout on a group of preclinical dental students. *European Journal of Dentistry*, 356-363.
- Depression: What is burnout?* (2020, June 18). Retrieved from NCBI: <https://www.ncbi.nlm.nih.gov/books/NBK279286/>
- Elizabeth Scott, M. (2020, September 14). *The Importance of Hobbies for Stress Relief*. Retrieved from verywell mind: <https://www.verywellmind.com/the-importance-of-hobbies-for-stress-relief-3144574>
- Fink, G. (2016). *STRESS: CONCEPTS, COGNITION, EMOTION AND BEHAVIOR*. London: Elsevier Inc.
- Gomez HP, P. V. (2015, July 01). *[Academic achievement, engagement and burnout among first year medical students]*. Retrieved from Europe PMC: <https://headtohealth.gov.au/meaningful-life/purposeful-activity/hobbies>
- Health, H. t. (2019, July 11). *Purposedul activity- hobbies*. Retrieved from Head to health: <https://headtohealth.gov.au/meaningful-life/purposeful-activity/hobbies>

- Hui-JenYang, C. K. (2005). An investigation the factors affecting MIS student burnout in technical-vocational college. *Elsevier*, 917-932.
- Katarzyna Tomaszek, A. M.-C. (2020). Examining the Relationship Between Student School Burnout and Problematic Internet Use. *Educational Science: Theory & Practice*, 16-31.
- Kettering University. (2019, April 15). Retrieved from Why Hobbies Are Important?: <https://online.kettering.edu/news/2019/04/15/why-hobbies-are-important>
- McLeod, S. (2019). *What is Psychology?* Retrieved from Simply Psychology : <https://www.simplypsychology.org/whatispsychology.html#:~:text=Psychology%20is%20the%20scientific%20study,social%20behavior%20and%20cognitive%20processes.>
- McLeod, S. A. (2020, March 20). *Maslow's hierarchy of needs.* Simply Psychology. <https://www.simplypsychology.org/maslow.html>
- Melinda Smith, M. J. (2019, October). *Burnout Prevention and Treatment.* Retrieved from HelpGuide: <https://www.helpguide.org/articles/stress/burnout-prevention-and-recovery.htm>
- Morteza Charkhabi, M. A. (2013). The association of academic burnout with self-efficacy and quality of learning experience among Iranian students. *Springplus*, 677.
- Parids Rhamtapour, M. C.-R.-E. (2019). *Academic burnout as an educational complication and promotion barrier among undergraduate students: A cross-sectional study.* Retrieved from Jehp: [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=academic+burnout+student+problem&oq=academic+burnout+student+prob#d=gs\\_qabs&u=%23p%3DdQpsGSPjE98J](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=academic+burnout+student+problem&oq=academic+burnout+student+prob#d=gs_qabs&u=%23p%3DdQpsGSPjE98J)
- Ray, C. (2017, October 12). *How Hobbies Can Improve Mental Health and Mental Fitness.* Retrieved from Soul Spring: <https://soulspring.org/wellness-blogs/entry/how-hobbies-can-improve-mental-health-and-fitness>
- Scott, E. (2020, September 14). *The Importance of Hobbies for Stress Relief.* Retrieved from verywell mind: <https://www.verywellmind.com/the-importance-of-hobbies-for-stress-relief-3144574>
- Tien-Yu Chen, Y.-C. C.-S.-A.-C.-Y.-W.-B.-C. (2015). Effects of a selective educational system on fatigue, sleep problems, daytime sleepiness, and depression among senior high school adolescents in Taiwan. *Neuropsychiatr Dis Treat*, 741 - 750.
- Tips for Preventing Student Burnout.* (2019, August 20). Retrieved from Florida National University: <https://www.fnu.edu/tips-preventing-student-burnout/?fbclid=IwAR1jC-laMNoFMvpybhAQn0hO1tt-itSoXcfdYNrIrWMQqlwu8SbV0PLxA7Y>
- Yiwen Zhang, Y. G. (2007). Perfectionism, academic burnout and engagement among Chinese college students: A structural equation modeling analysis. *Department of Psychology*, 1529-1540.
- Blazer, C. (2010, October). *Information Capsule.* Retrieved from Hanover High: [https://www.hanoverhigh.org/uploaded/Hanover\\_High\\_School/Library/Staff\\_Research/Student\\_Stress\\_Information\\_Capsule\\_Volume\\_1006\\_.pdf](https://www.hanoverhigh.org/uploaded/Hanover_High_School/Library/Staff_Research/Student_Stress_Information_Capsule_Volume_1006_.pdf)
- Queiroz, D. P. (2015). Influence of burnout and sleep difficulties on the quality of life among medical students. *SpringerPlus*, 4.
- Fabrega, M. (n.d.). *16 Hobbies That Will Improve Ypur Quality of Life.* Retrieved from Daring to Live Life Fully, Live the length and Width of your life : <https://daringtolivefully.com/hobbies-to-improve-your-life>
- Lock, S. (2020, July 29). *Statistica.* Retrieved from Statistica Website:

<https://www.statista.com/statistics/189597/daily-average-time-spent-on-sports-and-leisure-by-age-in-the-us/>

PARKER, C. B. (2014, March 10). *Stanford research shows pitfalls of homework*. Retrieved from news.stanford.edu: <https://news.stanford.edu/2014/03/10/too-much-homework-031014/>

Stegner, M. (2018, July 24). *Don't Overload Students: Assigning Too Much Work Discourages Learning*. Retrieved from informED:

<https://www.opencolleges.edu.au/informed/features/dont-overload-students-assigning-too-much-work-discourages-learning/?fbclid=IwAR3eYbHy2SX-Je6-8Y0Jz-Aal9pcLwCcHknfdYzW9CjE5zlmStgQyXTUiLo>

Vincent, J. (2015, June ). *Benefits of Social Activity*. Retrieved from University of Arkansas System, Division of Agriculture, Research and Extension Wbsite: <https://www.uaex.edu/counties/garland/news/fcs/2015/Benefits-of-Social-Activity.aspx>

Kettering Global. (2019, April 15). *Why Hobbies Are Important?* Retrieved from Kettering Global: <https://online.kettering.edu/news/2019/04/15/why-hobbies-are-important>

Pressman, S. D., Matthews, K. A., Cohen, S., Martire, L. M., Scheier, M., Baum, A., & Schulz, R. (2009). Association of Enjoyable Leisure Activities With Psychological and Physical Well-Being. *Psychosomatic Medicine*, 725-732.

Samra, R. (2020, March 11). *How to recover from burnout and chronic work stress - according to a psychologist*. Retrieved from The Conversation: <https://theconversation.com/how-to-recover-from-burnout-and-chronic-work-stress-according-to-a-psychologist-133259>

Stoewen, D. L. (2018). Burnout: Prescription for a happier healthier you. *The Canadian veterinary journal = La revue veterinaire canadienne* , 537-540.