

Information
consolidation theory
of sleep essay
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Since the 20th Century, researchers and experts in the field of psychology have become increasingly interested on how the amount of sleep affects the academic performance of students. People need sleep in order to maintain a healthy life in which they can function well and think properly. It is an important life activity that helps with memory consolidation, learning, decision-making, and critical thinking (Gilbert & Weaver as cited in Teroso, n. d.). Therefore, sleep plays a vital role in maintaining these functions at their maximum level of performance. The amount of sleep needed slightly varies by different stages of life, most adults and the elderly are required to sleep between 7 to 9 hours per night. While those in their teen years and below require more sleeping hours. (National Sleep Foundation as cited in Smith, Robinson, & Segal, 2017)

Sleep is very important for students. Therefore, this study focuses primarily on adolescents and students. The amount of sleep could be an important factor that influences a student's grade point average (GPA). A longitudinal study on the effects of insufficient sleep on middle school students was conducted by Fredriksen, Rhodes, Reddy and Way (2004). The study showed that lack of sleep resulted in: lower self-esteem and lower grades. This was supported by the study of Ferrie et al. (2011) who showed evidence from cross-sectional studies that adverse changes in sleep duration is associated with the poor performances of cognitive functions.

According to Myers (2014), sleep is a prerequisite, however insufficient sleep is common among college students because they would give more importance to their studies. A research was conducted by Buboltz, Brown, and Soper (2001) regarding the sleep quality of college students. In their <https://assignbuster.com/information-consolidation-theory-of-sleep-essay-sample/>

study, problems regarding sleep were very abundant, which supported past researches that college students suffer more from sleep problems than the average adult population.

Now, it is very important to know why many students tend to get low scores after taking tests and to know some important factors that would help them in gaining good academic performances. Many researchers were interested in this topic because most of them believed that this research is very helpful in showing and explaining the reasons behind the performances a student in a university or school.

The purpose of the present study is to examine whether the amount of sleep has a relationship with academic performance. Statement of the problem This study aims to investigate the relationship between the amount of sleep and the academic performance of the senior high school students of Don Bosco Technical Institute -Victorias for A. Y. 2017-2018. Specifically, it will answer the questions that follows:

1.) What is the average amount of sleep of the participants when taken as a whole and when grouped according to:

a.) sex;

b.) year level;

c.) track taken?

2.) What is the level of academic performance of the participants when taken as a whole and when grouped according to:

a.) sex;

b.) year level;

c.) track taken?

3.) Is there a significant relationship between the amount of sleep and academic performance of the participants?

Hypothesis

1. There is no significant relationship between the amount of sleep and academic performance of the participants.

Theoretical framework

In this study, only one theory was used. The Information Consolidation Theory of Sleep depends on subjective research and proposes that individuals rest keeping in mind the end goal to process data that has been obtained amid the day. Yet handling data from the day earlier, this hypothesis additionally contends that rest enables the mind to get ready for the day to come. This theory of consolidation gives brief background how students perform and absorb memory when amount of sleep is affected. The consolidation theory is the procedure in which recollections are reinforced after some time to the point that they turn out to be practically perpetual are put away in long-term memory. Support for this thought originates from various lack of sleep examines showing that an absence of rest seriously affects the capacity to review and recollect data.

In view of his discoveries (Stickgold et al., 2000) of enhanced execution on a perceptual segregation errand following rest, Stickgold commented (Blakeslee, 2000) that the examination challenges preferences and desires

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about what makes an intelligent student. During slow-wave sleep (SWS) the system consolidation of memory takes place rather than the rapid eye movement (REM) sleep. Stickgold (2000) supports that this was not shocking, for the recollections by and large inspected in these cases were working memory and decisive memory, which would not be relied upon to be modified by a disturbance of REM rest.

These tests classically measure working memory and declarative memory systems that would not expect to be affected by REM deprivation. There is confirm from considers analyzing impacts of rest after understood versus express learning of the serial response time undertaking that the rest actuated pick up in engine execution on the errand was more healthy after unequivocal preparing, proposing that unequivocal encoding favors access to rest subordinate memory union (Robertson, Pascual-Leone, & Press 2004). The theory shows that the motor skills and consolidation perceptual of the person is dependent on sleep.

While trying to incorporate a huge assortment of discoveries from creature and human investigations in the field, the role sleep and diverse sleep stages play was indicated basically to consolidate memories at the frameworks level. In any case, the model can likewise be stretched out to clarify a moment memory-related capacity of rest, specifically to facilitate the encoding of new materials. Stickgold recommended that rest might be as imperative, or much more in this way, than customary factors in deciding insight or scholarly achievement. This process of consolidation theory is to give clarification and understanding how sleep enables students to achieve good academic performance in school.

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Participants. The findings of this study will inform the participants that 7 to 9 hours of sleep is necessary for them to be efficient in their studies. They will also be more attentive, cooperative and participative in classroom discussions and school activities. As a result, achieving the desired amount of sleep have good effects on their academic performance.

Parents. Parents should be aware that children have growing brains and bodies that require a healthy sleep pattern in order to function properly. Knowing what is good and bad to the children is an important thing that parents should know. Through this study, they could learn and gain knowledge on how they could help cope with the problems of their children to maintain a good academic performance and a healthy lifestyle that could give their children healthy participation in class, gain full strength in participating various kinds of activities and events in the school, and could produce good social interaction with people. After reading and understanding this research, they can instill discipline in their home in order for the child to achieve desired amount of sleep which gives them the opportunity to think creatively and participate actively in school and in the community.

Teachers. Teaching is considered as one of the most exhausting activity both mentally and physically. In this research, teachers are part of the significance of the study because most of the teachers are completely sleep deprived. With inadequate sleep comes irritability, forgetfulness, lower tolerance of even minor annoyances, and less efficient organization and planning. These are the very mental muscles teachers need to meet the challenges of the next day.

In wanting to do a better performance the next day, the brain keeps bringing up the worries that deny it the rest it needs. That's why in this study, teachers could gain awareness and knowledge on how sleep affects their work and lifestyle. After reading this research teachers could set a bed time alarm, have a night time routine, and different kinds of activities that helps prevent lack of sleep. Importantly, teachers could achieve good connection to the students in class because of having knowledge how sleep affects the academic performance of the students.

Future Researchers. Future researches could enhance the generalizability of the present study and provide future understanding of the relationship between sleep and academic performance. Furthermore, they could also research on the effects of sleep duration and sleep patterns of students. Additionally, future researchers could also study on the relationship of daytime and nighttime sleepiness on academic performance.

Community. This study can give insights in the community on how can they manage their sleeping habits in order to improve their work performance. This can also serve as a reflection on how they will manage their current situations. This can give the community the understanding of the sleeping habits of its people and produce programs which can develop their sleeping habits that can help them to function effectively in their school hours.

Definition of Terms

The following are defined in order to provide a definite frame of reference for the issue that may arise in this study and to clarify certain points and better understanding of this study. The important terms are defined conceptually

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and operationally. Sleep. The term is conceptually defined as a vital necessity for people to live a healthy life in which they can function well and think properly that helps with memory, consolidation, learning, decision-making, and critical thinking (Teroso, n. d.).

In this study, it refers to the sleeping hours of the participants. It was measured using the table of National Sleep Foundation. The participants were classified as teenagers, young adults and adults.

Adolescence. The term is conceptually defined as a dynamically evolving theoretical construct informed through physiologic, psychosocial, temporal and cultural lenses (Curtis, 2015).

In this study, it refers to the adolescence senior high school students of the chosen school. It was measured through the definition of healthychildren.org and it is classified as early, middle, and late adolescence.

Sex. The term is conceptually defined as either of the two major forms of individuals that occur in many species and that are distinguished respectively as female or male especially on the basis of their reproductive organs and structures (Miriam-Webster Dictionary). In this study, sex was used to determine the participants according to their particular sexual structures. The participants were classified as male or female.

Year Level. The term is conceptually defined as the grade level or year of attendance of someone who is in a school (WikiAnswersCommunity). In this study, it refers to the grade level of the participants. It is determined under the senior high school category and was classified by: grade 11 and grade 12 students Track Taken. The term is conceptually defined as one of several

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curricula of study to which students are assigned according to their needs or levels of ability (Miriam-Webster Dictionary).

In this study, track was used to know the particular course of the participants.

Academic Performance. The term is conceptually defined as the outcome of the education- the extent which a student, teacher, or institution has achieved their educational goals (Wikipedia).

In this study, the academic performance of the participants was measured using the Academic grading in the Philippines. Their grades were classified as failure, pass, fair, good, very good, and excellent.

Scope and limitations

This present study “ Relationship between sleep and academic performance” is bounded only for the senior high school students of Don Bosco Technical Institute- Victorias, A. Y. 2017 - 2018. Their ages range from 16 to 24 years old. This study can be affected with some unavoidable limitations. First, the environment of their classrooms would be a factor that could influence their daytime sleepiness.

Second, this study may be limited by under-reporting because students may give socially desirable answers such as not having sleep problems. Third, the present study remains only on the duration of sleep on academic performance and does not answer the daytime and nighttime sleepiness of students. Lastly, does not answer the questions that follow: Why do some students sleep early but are sleepy during class hours? Why do some students sleep late but are active during class hours? Why do some students

sleep late, but have good academic performance? Why do some students sleep early, yet have poor academic performance?