Exploration of daily habits and their benefits

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Abstract
The following literature review covers the various different kinds of habits that humans take up and the benefits that these habits can provide for them. We want to know this because we need to ask ourselves how we can encourage habitual behaviour in humans and make them stick with it. Publications relating to the topic were searched through Primo Search engine and analysed. This topic is important because we need to discover ways for making an app do its job effectively in making students stick with their habits.

Introduction
The topic of this report explores the various different habits that people do and what their effects and benefits are. Specifically, we will be exploring the effects of studying, meditation and sleep habits.

Daily Habits Calendar is the project we have taken upon, and the goal of this project is to write a calendar interface or diary for students to use to list down and record their daily habits. These daily habits can involve anything from, medication compliance, mental stimulation, time out, healthy eating or healthy exercising. An example of how this interface will be used is when a user wants to run 30 minutes as part of his regular exercise regime. He or she could write it down on the calendar, tick the check box of when it’s completed and type down the number of steps they have taken on a numeric box.

This topic is used to provide an incentive as to why this interface should be developed and understand that the scope of the calendar is to encourage users to partake in these daily habits. This research was done by going through various search engines such as Google Scholar, IEEE explore and Primo Search engine. The relevant papers were then sought out by search queries and each of the papers were analysed and understood.

Sleep
Sleep is an essential habit to discuss. It is a condition which allows the body to rest and the importance of a good night’s sleep has been highlighted in many forms of literature.

However, there are studies that have shown that people often do not get enough sleep, and that there is a prevalence of sleep disorders that people have[5]. A study was done in the United States, where a National Health and Nutrition Examination Survey (NHANES) were used to access the health and nutritional status of adults and children in the US.

Out of the results, there were found to be many different sleep disorders that students suffered with. Out of these, the three most common were insomnia, sleep apnea and restless leg syndrome.

Insomnia was shown to have the biggest impact on human memory, with 45% having difficulty remembering compared to 40% from RLS and 30% from sleep apnea.

Concentration was also affected by those who had these sleep disorders. 64% of those with RLS, 56% of those with Insomnia and 44% of those with sleep apnea have reported to have experienced some form of concentration loss. Other significant problems include reporting difficulty with doing hobbies and getting things done, and having difficulty with their personal finance.

At least 10% of the population in the USA suffer from sleep disorders that is damaging.

With all the lack of sleep people get, it’s
important to highlight the benefits of sleeping too. An example of this is a study that suggests that sleep has the ability to improve student academic performance [1]. This study was taken place at the College of Medicine, King Saud University and was conducted between December 2009 and January 2010 with a random sample of healthy medical students. For the test, a questionnaire was distributed to retrieve information on the demographics, sleep and wake schedule, sleep habits and sleep duration of the participants. During the study, the participants had to watch their sleep habits and other parameters during weekdays and weekends for two weeks, whilst filling in the questionnaire. For the results, it turns out that obesity and smoking tend to be higher in the “average” group and enough sleep was found much higher in the “excellent” group.

The benefits of sleep not only affect intelligence and academic performance, but good sleep has also been shown to positively affect happiness and well-being[7]. A study was done where adolescents ranging from 10-16 years of age in Switzerland and Norway reported their amount of sleep and own personal well-being on schooldays using self-rating questionnaires. The aim for this longitudinal study was to find out whether a short amount of sleep has some sort of impact on subject psychological well-being as compared with longer amount of sleep. The results of the study came out that through cross-sectional and longitudinal analysis, longer sleep duration had a correlation with better subjective psychological well-being. There is evidence to suggest that sleep duration affected perceived well-being, whilst there was no evidence for the reverse relationship. In addition to this, it was found on average that sleep duration decreased with age.

From these studies, it appears that the lack of sleep can be very bad to humans and getting good amounts of sleep is important for individuals to have.

Study

Studying is one habit that every student should get into. However, like sleep, people do not study effectively and have high levels of procrastination. This, of course, can be dependent on the way in which the study material is presented and how schools organize their course.

A small study on procrastination was done on 11 graduate students who were enrolled in a 10-week single-subject design course at a Midwestern university [8]. Two schedules of online quiz delivery were compared, with one being when online study material was available noncontingently and the other was when online study material was contingent on completing previous study material.

The results showed that with no treatment, students study very little in the first part of the week, and then went in a burst of studying towards the end. During treatment, students shifted their studies more evenly in completing the practice quizzes.

Although it is a small sample size, it is still worth noting and highlighting the amount of procrastination students get into.

However, even with high levels of procrastination in students, a question to ask is how important is study time and does procrastination actually affect students? An empirical research was done on how study time and study habits affect the performance of college students[4]. The results of this study vary, as these is evidence to suggest that there is an impact, no impact and no relationship at all between the two variables. When it came down to study time, Schmidt (1983) did not show any correlation between study time and learning, as well as Nonis and Hudson (2006) reporting a similar finding. On the contrary, there have been other research studies that have reported very significant relationships between academic performance and study times. An example of this was Lahmers and Zulauf (2000), where 79 undergraduates enrolled in agricultural
economics class, and that a 40-hr increase in weekly study time resulted in a one-letter-grade increase in quarter GPA.

The limitations of these studies however are that many different variables such as gender, age, race, motivation and time management can influence these results.

Although many people understand that efficient studying is the key to good test marks, many tend to find studying boring and tiresome, and see it as a chore that they have to do in order to pass their examinations. However, many people don’t realize that studying could also help deal with depression [6].

A research in discovering the relationship between students’ study habits with happiness and depression was done by the Isfahan University of Medical Science. The study consisted of a survey, which included all MSc and PhD students as participants. A random sample of 100 people were selected out of 263 and the Beck Depression Inventory, Oxford Happiness Inventory and a questionnaire was used as data collection instruments to determine how much the students studies.

The results showed that although the relation between study scores and happiness were not relevant, there was a correlation that existed between study scores and depression. This relation was negative, which means that depression had decreased with an increase in studying.

This result was irrespective of sex and age. The happiness and depression levels among these students were not affect by this difference, nor were the study time any different between the ages and sexes.

Based on these literature, we can see that there are lots of benefits that studying can have. But it’s not just study time that affects students, it’s also the quality of study. Anybody can say that they have been studying for a long period of time, although their focus and attention may be elsewhere.

Our app essentially must focus on how we can get students to concentrate on their studies, and get into good daily habits for the sake of their own personal well-being and academic performance.

Sleep and study improvement

It has been noted that students do not get enough sleep and procrastinate often instead of studying.

A question to ask is how could we train students or teach them an effective method for getting better sleep often and get their study done?

This question could also apply for other daily habits too, such as doing their exercise routine or following their nutrition plan.

An interesting technique that could help students with these problems is meditation or some form of relaxation training.

Meditation and relaxation training

Studying and sleeping are things that students are familiar with. Many understand how healthy it is for them to have a good night’s rest, and how beneficial it is for their grades to have a regular and focused study habit.

However meditation, a practice that dates back many centuries old and deeply rooted in eastern tradition, is something that is not as well understood by most people.

When meditation is brought up, most people associate it with religion and those who do not understand meditation, tend to dismiss it as such if they are not religious.

However, meditation is a habit that has been shown to provide a large deal of benefits for those who practice it. It is has been linked to helping people improve focus, decrease anxiety, increase compassion, and decrease stress.

A study took place in the University of Washington to find out the effects of meditation and relaxation training upon alcohol use in male social drinkers [3]. Potential subjects were first chosen by administering a Drinking Habits Questionnaire to 1200 students in undergraduate classes. This survey classified respondents according to the
frequency, quantity and variability of alcohol consumed. The heavy drinkers were selected for accuracy in this experiment, which explores the usefulness of meditation and relaxation training with alcoholics and drinking problems.

The procedures was split into three separate phases, a 2 week baseline period, a 6 week treatment period, and a 7 week follow-up period. The follow-up period was where the daily record-keeping procedures continued, but the practice was optional.

The results of this study showed that the regular practice of a relaxation technique, whether it was through meditation or progressive relaxation, lead to a significant reduction in alcohol consumption for heavy social drinkers. The no-treatment group failed to show a similar decrease in alcohol consumption and the attention-placebo group did not differ much in alcohol consumption from the meditation and relaxation groups.

This shows how strong of an impact meditation can have on an individual to overcome addictions. It can also help with other types of problems that students run into, such as anxiety.

Another study was done on the effects of systematic deep breathing and relaxation techniques on anxiety [2]. This method was used to relieve test anxiety within high school juniors who were preparing to take the ACT, a very important, college admissions, standardized test.

In order to test this anxiety, the Westside Test Anxiety Scale was used. The method used to reduce anxiety were deep breathing instructions obtained from an online reference. The participants were split into two groups, the experimental group and the control group. During PE time, the control group participated as expected whilst the experimental group met in a wrestling gym where mats were used for the students to lay and create a relaxing environment. The students were taught deep breathing exercises and progressive muscle relaxation during their training periods, which took two days a week over five weeks leading up to the standardized test.

The results overall showed a significant difference between pre and post test scores for the experimental group, whilst the control group had little to no difference found. This is very important to highlight, as there is evidence to suggest that anxiety could impact adult years of children and affect quality of life and career paths (Miller, Morton, Driscoll, & Davis, 2006).

Overall, the benefits of meditation can be found in a lot of different literature. It has the ability to calm the mind and allow people to focus. When it comes to studying and sleeping, students can use meditation to help them get less anxious about their tests and also put their mind to rest. This allows them to sleep better and study harder for whatever problems they will be up against.

Incentive for good habitual behaviour

In the context of our project, a problem we must ask ourselves is how do we encourage habitual behaviour in humans? More specifically, we must identify what kind of way we can help students stick with their habits.

The following points that must be considered when developing this app is:

- Why would people want to use this?
- How will we design this?

We must find a reason as to why the students would want to use this. Students may want to use this when they have an assignment coming up, and they would like a daily reminder telling them to study up to the day of the test. Another possible use would be when they want to go for a run, and would like to keep a record of how long they ran for. Either way, it’s important to consider why if we are to find a way to encourage habitual behaviour in humans.

For the last question, we must design it in a
way that it encourages students to keep doing these habits.
A suggestion could be to make it so that the user can only input their data entry available for only today’s data, with yesterday’s and tomorrow’s data being uneditable. However, further research is necessary to answer this particular question.

Summary
Sleeping and studying are an example of some of the habits that students take in their life. Evidence shows that students do not get enough sleep, even though sleep has shown to have benefits that affect and improve both their academic work and their subjective psychological well-being. Students also do not get enough studying done and procrastinate very often, even though studies have shown that good study habits can improve their grades and decrease depression. Meditation has also shown to be very helpful in increasing focus, eliminating addictions and decreasing anxiety, which can be a key component in getting students to stick with their daily habits such as sleeping and studying. Overall, this paper focuses on the various different kinds of habits students can do. We must find out how we can provide students an incentive to continue with these daily habits which have been shown to provide them with so many benefits.

Future work
There are certain gaps and shortcomings that are to be addressed for this topic. Research should be done in finding out more on daily habits and how to increase incentive for people to continue with their daily habits. Daily habits are something that people don’t always do, despite the benefits of doing these habits and further research should be addressed on this topic.

References


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