iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** IV **Month of publication:** April 2023

DOI: https://doi.org/10.22214/ijraset.2023.51300

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue IV Apr 2023- Available at www.ijraset.com

Virtual Study Space: A Novel Way of Focus Management

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Abstract: ***Spark motivation, productivity, and focus with aesthetic background study spaces along with a Pomodoro timer to keep study sessions productive using Virtual Study Space. In Virtual Study Space, students can create their custom environment from highly curated minimalist themes, and work with the ability to control background noises to reduce distraction that provides the perfect background companion while one is working away at a lengthy to-do list. The virtual environment also features a video call for students to work together as a team to promote learning using collaboration to support the provision of organizational activities and the exchange of information and educational material. Thus, the implementation of this website becomes a practical depiction of the relations between rational beliefs about studying, academic procrastination, academic life satisfaction, and academic achievement. Tasks in the creation of the website include the development of the study environment, which is setting up web elements and embedding videos as workspaces. The student can choose user-friendly backgrounds according to the study moods such as cafes, nature and libraries. Next is the building of the timer where the user can work along with break time scheduled according to the Pomodoro timer. Lastly, the website has a feature of tracking tasks inside the study space by making a list of priorities to enable efficient planning of tasks to be accomplished in the correct time frame to keep the student-organized with their work.***

Keywords**:** ***Virtual academia, Pomodoro technique, Academic procrastination, Study environments***

I. INTRODUCTION

Has anyone ever found out the aesthetic of studying? Virtual Academia has become a rising star during the pandemic where students were forced to study in an online environment leading to procrastination and hatred towards studying. The negative consequences of academic procrastination provide that life for procrastinating students is intricate and uncontrollable. Thus, the college experience is likely to be unpleasant for the procrastinating student. In this way, academic procrastination may affect students' life satisfaction. The level of laziness that is experienced could influence students' academic life satisfaction. Academic life satisfaction is "Operationally defined as the expected satisfaction in one's life in school by the fulfillment of their important academic goals or aspirations". Concerning the relationship between procrastination and life satisfaction, scientists found that students who scored high in procrastination are significantly less satisfied with their life than the students who scored low in procrastination. General irrational beliefs may not always affect students' academic performance or academic achievement. Sometimes a domain-specific measure provides a clearer picture rather than a general measure. Virtual academia is an internet aesthetic and subculture concerned with education, time studying, and spaces, or an idealized version thereof. The aesthetic centers on traditional educational learning and study space design. The trend emerged on the social media site Tumblr in 2013, before being popularised by adolescents and young adults in the late 2010s and early 2020s, particularly during the COVID-19 pandemic.

II. ACADEMIC SURVEY

The investigations regarding life satisfaction and academic achievement show that satisfaction has a great influence on the achievement of students. Scientist Bronzaft found that academic achievement and life satisfaction were strongly related. Scientists Kumar and Dileep reported that academic satisfaction is the best predictor of achievement in school and college studies. These studies suggest that students' satisfaction with their academic life plays a significant role in their academic achievement. In this study, the relationships between academic life satisfaction and academic achievement will be tested by using path analyses. The literature reviewed so far indicates that there are relationships between procrastination, irrational beliefs, life satisfaction, and academic achievement. The previous studies have separately examined the relationships between these variables and utilized correlation analyses to open relations between these variables. The present study aimed to examine relationships between these variables in the structural equation model.

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It also aimed to examine the mediator role of rational beliefs about studying academic procrastination, academic life satisfaction, and academic achievement. According to David, Lynn, and Ellis, beliefs about events affect how we feel and behave. In other words, a student's beliefs have a mediator role between dysfunctional and functional emotions and behaviours. While rational beliefs lead to functional feelings and behaviours, irrational beliefs lead to dysfunctional feelings and behaviours. In this case, if procrastination functions as a function of irrational beliefs as seen by REBT, it may be expected that rational beliefs could reduce the negative consequences of academic procrastination on students' well-being or academic achievement, David, Lynn, and E, Ellis emphasized that modifying irrational beliefs and enhancing rational beliefs provide adaptive strategies coin for g with stressful life events. Considering the theoretical explanations and empirical findings above, a question can be asked: do students' beliefs about studying on assignments/projects have a role in academic procrastination-academic life satisfaction and academic procrastination? The answer given to this question would help educational psychologists in conducting psycho-educational workshops to improve students who suffer from procrastination, academic life satisfaction, and academic achievement within the school setting. By the literature, the following hypothesis has been generated: Rational beliefs about studying have a mediator role in academic procrastination, academic life satisfaction, and academic achievement. academic life satisfaction, and academic procrastination-academic achievement.

There is mixed evidence about the effect of irrational beliefs on academic achievement. Some studies found that irrational beliefs are negatively related to academic achievement. However, other studies did not find any association. achievement is not so clear. This discrepancy between previous findings may have occurred because the above studies only used measures of general irrational beliefs to determine college students' irrational beliefs. General irrational beliefs may not always affect students' academic performance or academic achievement. In a similar vein, using domain-specific measures may prevent the loss of information.

III. EXISTING MODEL

World Education is facing a paradigm shift due to the COVID-19 pandemic. It has confined the education system and pushed it to the limit. Distance learning has become the way out of the challenging situation. But this new dimension demands training for the school students.

The process of online learning in this pandemic situation is a daunting task for them. Higher education studying demands a more concrete approach toward the transition and acquisition of the online learning approach. The main challenge for the student is to use and adapt to technology. Google Classroom can be a very good platform for online teaching and learning management. Moreover, class conduction platform online needs to be cost-effective and easy to use. There are plenty of resources that can be used as CCP. But Zoom application is providing a better facility to all students.

The meeting host or co-host can choose to split the participants of the meeting into these separate sessions. Breakout room participants will have the same audio, video, and screen share capabilities as allowed in the main session. The participants will be given a countdown of how much time they have left before being returned to the main room. Yet students seem to be wary about finding a study-specific platform that curates tools specially designed to aid studying.

IV. PROPOSED MODEL

Virtual Work Space is a website that aids to manifest the perfect environment for study or work sessions with useful study tools all under one roof. The user authentication is super convenient and saves time for any user thus leaving more time for website usage. The student can boost focus and study with new friends, all while achieving their goals. The best way to remember answers is when it is discussed and studied with friends.

So, the website's main feature is to increase focus by allowing group study with video calls with friends with a single tap on the group study page. Group study skills are transferable to other tasks. Learning quality group study skills prepares students to enter expanding work arenas where teamwork is demanded. These group activities sharpen members' communication skills as well as enhance their cognitive skills.

V. STUDY TOOLS

The study spaces utilize quantitative and truly tested tools specific to distraction-free studying such as a timer, a To-Do list, a video call for group study, and an aesthetic environmental design. This design uses the effects of Pomodoro and checklist techniques on the respondent's academic-related tasks, and academic motivation. The intervention protocol includes the conduct of orientation of activities among the respondents utilizing either the Pomodoro or Flowtime technique, where both are time management strategies.

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A. Pomorodo Technique

Each study environment consists of a Pomodoro timer at the top right corner of the webpage. The students can track productivity using the Pomodoro technique which is a chunking method intended to optimize productivity and time management while minimizing burnout. This technique allows for four sessions of intense focus over 2 hours. There are four periods to get things done within this time, with breaks scheduled in between. Each of these 25-minute blocks of active time is designed to maintain an extreme level of focus. The first three periods are broken up by 5-minute breaks to rest fully and step away from the desk. The fourth 25-minute focus interval is followed by an extended 20-minute break before the timer ultimately resets again. These sessions are the ideal amount of time to completely lose oneself, deep in focus and productivity. At first, the frequent breaks might seem to come a little too often. But, as the student continues to use this strategy, they will find that they are progressing through their work quickly while staying focused longer and more intensely during these periods. The next day they don't have that extra tired, burnt-out feeling that they usually do after spending an entire day studying. When a student has a ton of work, layering these two-hour sessions, one after another can help the student get through it in a smarter way.

B. To-do List

Create and track tasks inside the website by making a list of priorities to enable efficient planning of tasks to be accomplished in the correct time frame to keep organized with work. having a to-do list may help the student prioritize work and personal tasks. This allows the student to organize and complete the most crucial tasks first. To-do lists can be used to improve time management because all of the tasks are laid out clearly in advance. The user can more easily decide what to do after they complete a task and move on to the next item on the list. Having a to-do list makes it easier to organize everything that the user wants to accomplish in the day so that they can start fresh the next. Physically crossing items off a list can also increase motivation. Organizing the student's schedule with a to-do list can improve their mental health by resolving uncertainty and allowing them to see all the activities they planned to accomplish throughout the day. The act of completing tasks can also provide an ego boost, reassuring them of their capabilities. The satisfaction of checking a task off one's list and moving toward a new goal can increase inner self-confidence. Completing tasks and having a physical action, such as crossing them off a list, can provide a sense of accomplishment. Accomplishing a task can boost morale and improve productivity.

C. Group Study

Group study is typically resisted by students until they are exposed to, understand, and experience its benefits. The group study page on the website is a video call made using WebRTC where the students can share ideas, and work on collective time management, and task preparation. This encourages cooperation amongst group members, collective responsibility both for the group task and for each other's welfare, and a willingness to be an active group participant. These attributes are needed for truly successful group participation. Group study has benefits that fall into the cognitive and affective domains. The group study enhances student social skills, helps bolster student confidence, and helps students practice assertiveness. Group study skills are transferable to other tasks. Learning quality group study skills prepares students to enter expanding work arenas where teamwork is demanded. Group study requires students to articulate what they know to fellow group members. It also requires students to listen to fellow members' ideas. These group activities sharpen members' communication skills as well as enhance their cognitive skills. Well-prepared group members likely will have read, observed, or thought about assignments in variant ways. Such diversity awareness, tolerance, and acceptance are other group study benefits. Being aware of, understanding, and applying diverse learning styles and learning outcomes implicitly prepares students for later vocational and community realities. Group study validates what students know if they are required to articulate in the presence of others what they have learned. When they can clearly articulate what they know, can answer probing questions about their knowledge.

VI. WEBSITE ARCHITECTURE

Web application architecture is a mechanism that gives clarification about how the connection is established between the client and the server. It determines how the components in an application communicate with each other. It doesn't matter what's is the size and the complexity level of the application is, they all follow the same principle only the details may differ. In technical terms, when a user requests a website, various components of the applications, user interfaces, middleware systems, databases, servers, and browsers interact with each other. Web Application Architecture is a framework that ties up this relation together and maintains the interaction between these components.

When a user interacts with a website and gets a response back from the server's end, the whole process executes within a few seconds. The administration tools used for the website are Google API and Bootstrap administration. While working on the web application, a web developer decides the functions of the code on the server and the functions of the code on the browser. They also define how these two will function with each other. Server-side code is written using the languages JavaScript and PHP. The server-side code is mainly responsible for creating the page which the user has requested. PHP stores data such as user to-do lists, and each video call generates unique links which get stored in the Firebase. Server-side code cannot be seen by the end user. Client-side languages include a combination of HTML, CSS, and JavaScript. This code is parsed by the browser, and it can be seen as well as edited by the user. Only through HTTP requests, client-side code can communicate with the server. Also, it cannot read files off a server directly.

VII. RESULTS

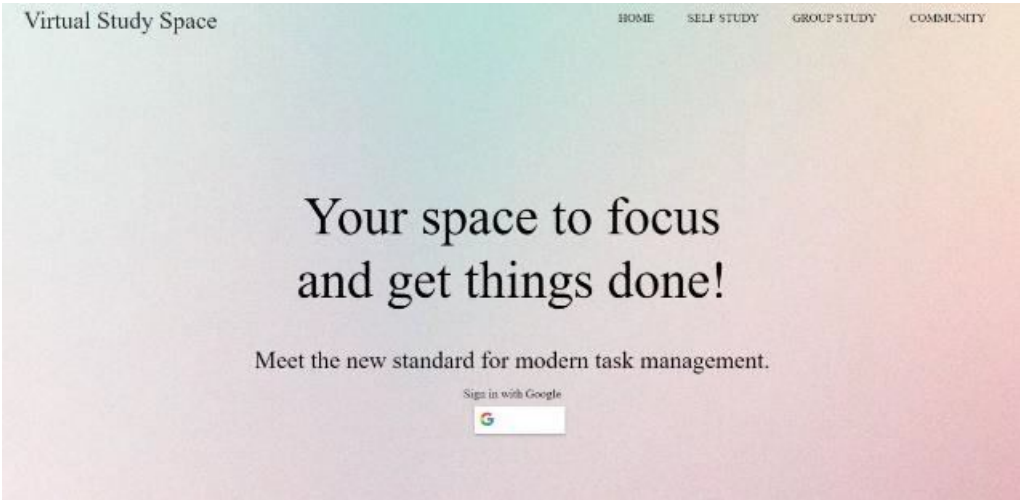


Fig. 1 Home Page

Fig.1 shows the landing page of the website which consists of Home, Self-Study, Group Study, Community pages, and the sign-in option with Google.

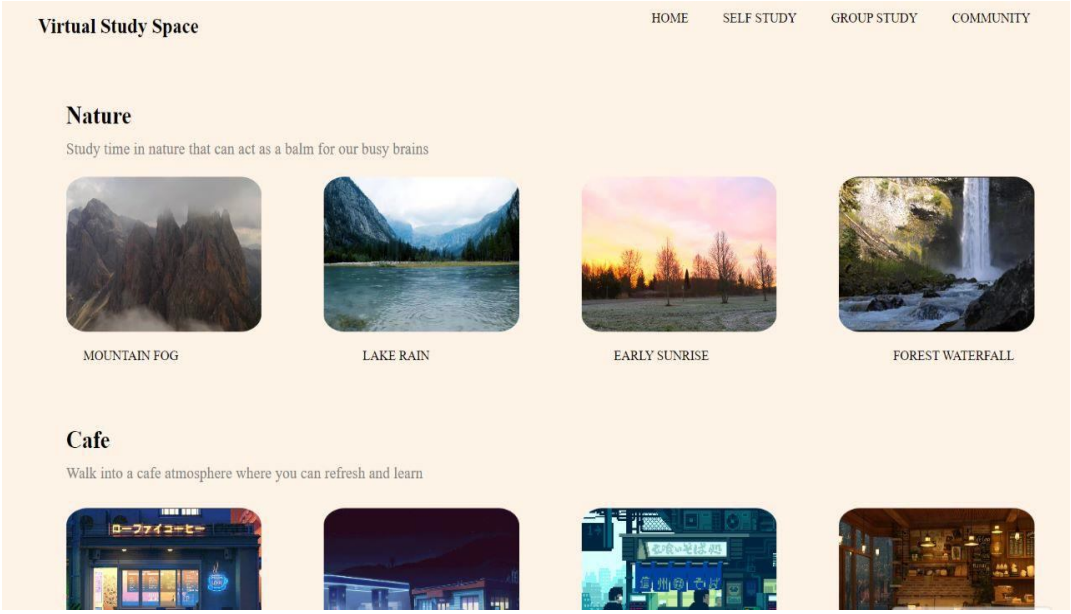


Fig. 2 Self-Study Page

Fig. 2 demonstrates multiple options to choose as backgrounds for self-study purposes such as Nature, Cafe, and Study with Me.



Fig. 3 Study Space

Fig. 3 displays the selected background with an overlay of the timer of the Pomodoro technique, To-Do checklist and background music designed for studying.

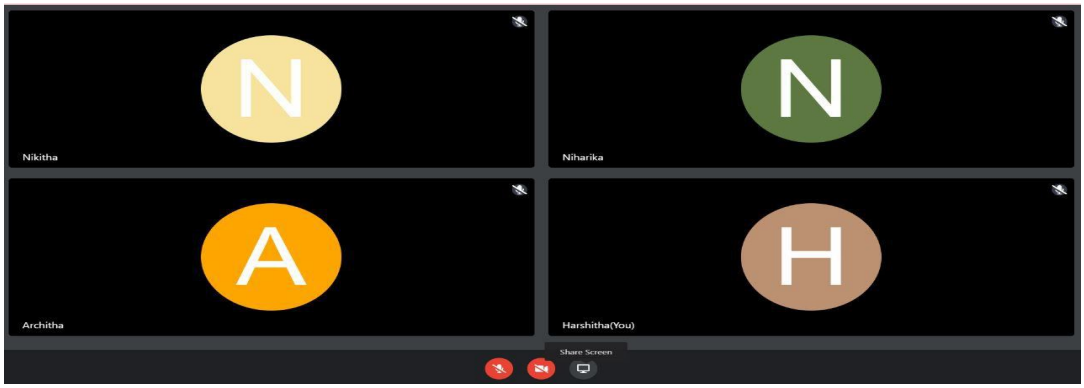


Fig. 4 Group Study

Fig. 4 demonstrates the group study section of the web page which resembles a video call for studying with other users.

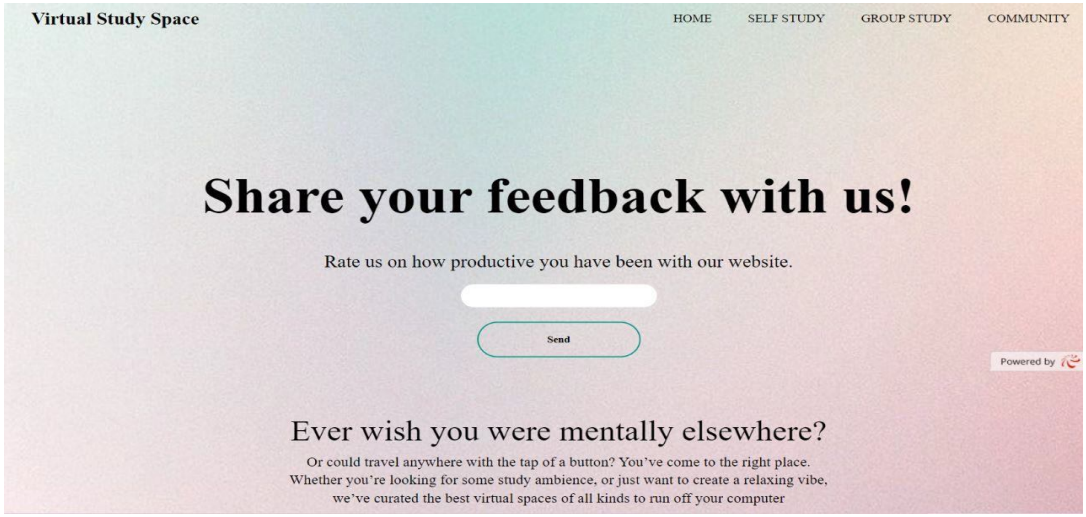


Fig. 5 Community Page

Fig. 5 demonstrates a community page where user can share their feedback.

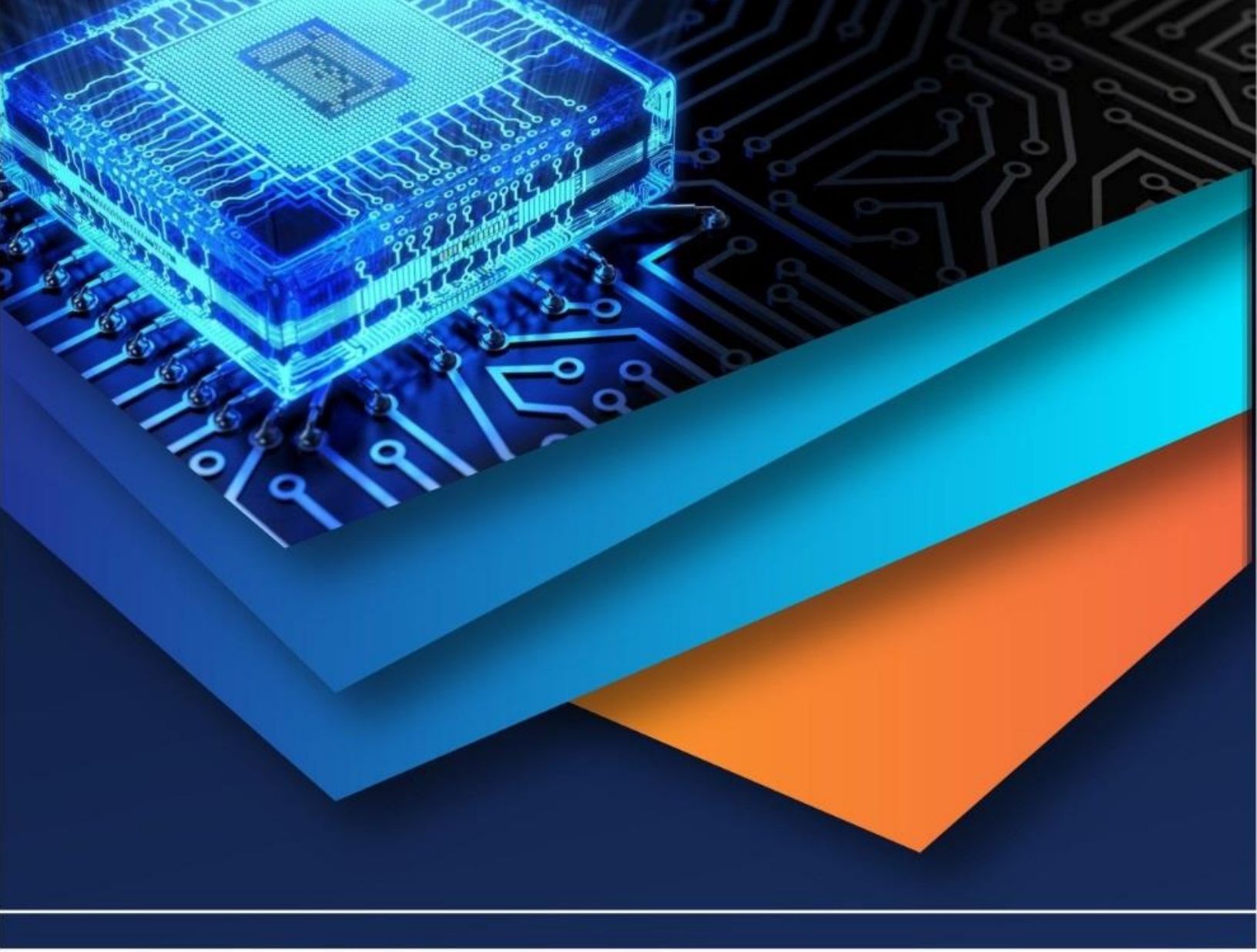
VIII. CONCLUSIONS

A positive outcome that Virtual Study Space brings forth is the increasing appreciation of STEM studies or humanistic studies among students. As over the centuries, the art of studying has gradually lost its importance, Virtual Academia empathizes with its beauty of it. By studying in virtual backgrounds such as being surrounded by the nature, or the cozy ambiance of a café, the students can virtually teleport to ambient study space and improve their focus management. Individuals who are inspired by this aesthetic are more efficient and productive with their time. This also lays a great deal of emphasis on the act of learning, specifically consisting of an intellectually stimulating, Virtual Study Space that romanticizes the activity of studying. Studying is leisure even if nothing is to be gained from a subject, Virtual Academics still pursue it for the sole reason of gaining knowledge. Grades are not the top priority in the way that they study to gain knowledge and make it intellectually stimulating. In the day and age where grades act as a shackle on students and drown them under the pressure of achievements, Virtual Study Space acts as a fresh breath that not only frees the individual of the societal demand for over-exhausting themselves to achieve their goals, it also emphasizes the act of learning just for the sake of knowledge. It adds glamour to the mundane activity of going to school, doing homework, or reading in general. It accentuates making study checklists and following scheduled work sessions with breaks. Virtual Study Space is yet to become the new standard for modern study-task management.

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