



Comparative Study on the Social Psychology of Designed and Undesigned University Campus

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ABSTRACT

This comparative Study on the Social Psychology of Designed and Undesigned Campuses examines how a campus's intentionally or unintentionally designed landscape components influence students' psychological impacts, attendance and social interactions. It is conducted by a designed online questionnaire based on the components of landscape desirability and students' mental health responses to that such as understanding, exploration, compatibility with the desire for participation, and depression and anxiety. The questionnaire was given to a total of 100 university students. The sampling method was random clustering based on public and private university categories. The data from the questionnaire was analyzed using statistical methods and comparison techniques. The ultimate goal is to compare and prioritize the desirability factors of the designed landscape on campuses, and the student's attendance at the university which can assist universities in creating environments that promote positive student experiences, reduce mental health issues, and increase attendance and social involvement. This study can inform future campus development, enhancing the entire educational experience and promoting student achievement through well-designed spaces.

Keywords: Campus design, Psychological impacts, Landscape desirability, Mental health, Green spaces, Social psychology, Emotions and behaviour

INTRODUCTION

The University campus is composed of roads, buildings, and spaces, forming a physical environment, just like the urban pattern, but on a smaller scale.(Anggiani & Heryanto, 2018)For some people, the landscape is considered a complementary element as it is used in the open spaces, and landscape elements surrounding buildings and facilities, disregarding its great impact on the users' emotions leading to a change in their behaviour, attitude, and quality of life. as what was mentioned by Mitchell et al.(Mitchell et al., 1995)

The designed campus refers to a purposefully planned layout and is designed with a specific vision or concept in mind. The campus takes into account factors such as building placement, planful pathways, green spaces, gathering and open areas, designed landscapes, spaces for social interaction with aesthetic appeal. The designed landscape is the design of outdoor spaces with vegetation, water features, or any other landscape elements, as well as landmarks and structures that help achieve a better and healthy sustainable environment to surround humans and provide the best quality of life. On the contrary, the undesigned campus is developed without a specific master plan or vision or, more organic, if designed it would be in a manner of lack of space so, often leading to disorganized structures and less intentional social or communal spaces. It may have grown organically over time, with buildings and faculties added as needed without much consideration for overall campus design. An undesigned campus may lack a cohesive aesthetic or spatial organization, with buildings. It is important to note that the terms "designed campus" and "undesigned campus" exist on a spectrum, and many campuses may fall somewhere in between, with varying degrees of intentional design and planning. This study aims to shed light on the link between physical campus surroundings and mental health outcomes for educational institutions, architects, and planners, while also giving significant ideas for future campus development. Further investigation into the exact design features that contribute to these differences might help inspire efforts to create healthier, more supportive learning settings.

This study on social psychology on campus related to designed and undesigned plans shows that the campus landscape's design can significantly impact the social psychology of individuals within the academic community. This study found that both public and private institutions with planned campuses have lower levels of sadness and anxiety than their undesigned equivalents. it's because comparatively in Bangladesh most public universities have a designed campus while private universities are more congested and built on limited

space and sometimes with minimum open spaces. Students on planned campuses had much lower levels of depression, demonstrating that intentional campus design promotes a more supportive and favourable atmosphere for mental well-being. Social psychology is a branch of psychology, which mainly studies the occurrence and the behavior of individuals and groups in social interaction and so on. In universities both public and private, the students will feel the initial psychological impact of social competition, so they will also be exposed to a new stage of mental health. Social psychology studies show how social psychology principles can be integrated with the design process of campuses to foster positive social interactions, and self-improvement, enhance community engagement, and promote overall well-being among students' mental health and faculty(Sharghi. A, 2011). Overall, studying social psychology in campus design helps create environments that promote positive social interactions, well-being, inclusivity, academic success, and safety. By considering the psychological and social needs of individuals within the campus community, designers can create spaces that foster a supportive and engaging campus environment.

Selection of Campus: Based on several important factors, such as permanent vs tenant facilities, public versus private status, and the participation of other colleges within the National University, this study carefully chose campuses. By taking into consideration differences in resources, governance, and student demographics, this strategy guaranteed a broad representation of institutions. Due to the high cost of land and the fact that the majority of private universities are situated in busy cities with limited built space, they are typically more crowded and vertically extended with little open or gathering area. They are different from public universities because of landscaping components. The study sought to obtain a thorough understanding of the educational landscape by taking into account both tenant facilities with dynamic features and permanent campuses with established infrastructures. The study's scope was subsequently expanded by including colleges associated with the National University, which produced a thorough examination of various campus environments.

This comparative study on the social psychology of different campuses would explore how the physical layout and landscape features of a campus environment impact the social interactions, behavior, and overall experience of individuals within that space. Such as designed campus landscapes often incorporate areas specifically intended to foster better mental health conditions such as open spaces, greens, clear pathways, ramps, and accessibility features(Haggans, n.d.). The un-designed campus may have limited or inconsistent accessibility features. It can also have fewer exploring options for spaces and green areas than

a designed one. This study will compare the differences in mental health conditions in terms of designed components. This Comparative study can evaluate how different design approaches influence the sense of belonging, attachment, and connection to the campus of university students and influence their attendance rate as well.

LITERATURE REVIEW

This part is reviewing the literature related to the social psychology of designed and undesigned campuses as the relationship between educational open space and student learning can be realized.

The main objectives of this study are:

1. To assess students' perceptions of campus landscape quality.
2. To examine the relationship between landscape quality and attendance behavior.
3. To explore the underlying factors influencing this relationship.

The objectives of the study, include assessing students' perceptions of campus landscape quality, examining the relationship between landscape quality and attendance behavior, and exploring the underlying factors that influence this relationship. Considering the assessment of the educational environments and students' behaviour study shows that in most universities that have closed and insufficient spaces, all attention is focused on the inner spaces, and what is neglected is the open spaces that are used to help the goals of these spaces. The campus is not just a place for trees, gardening, development, lighting, parking, or passage and access. These places require their planning and design guidelines(Edwards, 2014). The relationship between the open space and the university's landscape with the educational buildings needs to be explored and defined. The campus landscape plays a significant role in shaping the physical environment in which students study and engage in various activities. Understanding the potential influence of landscape quality on attendance patterns can provide insights for campus planning and design strategies that promote student participation, engagement, and academic success. The quantitative and qualitative findings, focus on students' perceptions of campus landscape quality and its relationship with attendance behavior. It also provides Provide statistical evidence of any significant correlations or associations found (Dober, 2000).

Theoretical Framework: Based on environmental psychology and Gifford's theories, man is always exposed to interaction with his surroundings. Social behavior cannot occur in vague and is "not merely related to an individual but also to how it interacts with the surrounding environment." John Lang, a researcher of environmental planning and design, emphasizes that not considering the user needs of space can cause a lot of physiological and psychological damage. The research is trying to find an effective way to design open spaces for educational sites, which will improve the teaching-oriented quality of open environments. Educational sites should be designed, implemented, and managed in a way that is applied to their main purpose: education.

Prioritizing the Role of Each Factor of Landscape Desirability: Continued focus on the study behind the desk will make the mind tired, which is leading to distraction, boredom, mental impairment, and reduced performance, but as the research parameters show about the University of Bojnord campus, mental fatigue can be improved by the deliberate arrangement of landscape elements in universities' campuses.(Ghorbanzadeh, 2019)

Recognizing the emotional and psychological needs of students: Students experience a wide range of emotions during their academic journey, including stress, competition, frustration, and anxiety(Gorgati & Savid-Buteler, n.d.). Acknowledging these emotions and understanding their impact on students' well-being is crucial. Highlight the importance of creating a campus environment that addresses these needs and provides opportunities for relaxation, rejuvenation, and emotional support.

Fostering a sense of connection and community: Social support and a sense of belonging are essential for students' well-being. Campus landscape design should aim to create spaces that encourage social interactions and foster a sense of community. This can be achieved through the inclusion of communal gathering areas, outdoor seating arrangements, and collaborative spaces where students can come together, interact, and build relationships.

Promoting physical activity and movement: Physical exercise has been proven to have positive effects on mental health. Integrate elements that promote physical activity into the campus landscape design. This can include walking paths, cycling routes, outdoor fitness equipment, or sports facilities. By providing opportunities for physical movement, the campus environment can contribute to reducing stress and improving overall well-being. Promote physical activity and movement: Physical exercise has been proven to have positive effects on mental health. Integrate elements that promote physical activity into the campus landscape

design. This can include walking paths, cycling routes, outdoor fitness equipment, or sports facilities. By providing opportunities for physical movement, the campus environment can contribute to reducing stress and improving overall well-being(Hipp et al., 2015).

Incorporating natural elements: Nature has a restorative effect on individuals' well-being. Integrate natural elements such as green spaces, trees, and gardens into the campus design. Access to nature has been linked to stress reduction and improved cognitive function. These natural areas can serve as retreats where students can find solace, connect with nature, and recharge.

The design of many campuses' garden architectural landscapes simply pursues the landscape effect, ignores the psychological needs of students, and cannot play its role in alleviating students' anxiety. Therefore, it is necessary to improve the landscape design of campus garden architecture. The research is based on social psychology to improve the campus garden architectural landscape design to alleviate students' anxiety.(Wang et al., 2022)

As Pekrun et al. stated in 2010, emotions can be considered an important part of the learning process, as they were found to be related to students' productivity, quality of learning, and well-being. At Harvard University, a department of counseling and mental health services was specified to manage students' mental health and well-being, including the importance of students' emotions in their activities, they started multi-session workshops in 2019, for introducing new approaches for participants on handling their feelings and emotions.

Studies had proven that the urban space has several factors affecting peoples' emotions, among these factors is the landscape elements used in this space, where people live, grow, work, and perform (Hani et al., 2020). Although the human–landscape interaction has been studied in many ways, the emotional value of landscape elements has been neglected.(Rezaee & Kalantari, 2019)

University campus is a reliable opportunity for promoting positivity for its users, affecting their behavior. However, students on university campuses are usually subjected to a high level of stress, referring to a malfunction between the campus environment and the student's needs. Landscaping the outdoor spaces of university campuses is among the essential factors that affect campus users, students specifically. Humans can bond emotionally with the surrounding landscape(Hani et al., 2020). Thus, studying the relationship between landscape elements and students' emotions on the university campus can contribute to applying the optimum design for the landscape elements used on campus

Linking landscape elements to students' emotions on campus: Landscape elements on campus vary between soft landscape elements and hard landscape elements. The most common landscape elements used in university campuses are: vegetation, water features, outdoor space furniture including seats and benches, bollards, trash cans, kiosks and public art, in addition to lighting elements, signage, circulation features including gates, edges, and paths, and finally parking utilities.

Students' academic achievement was proven by research to be strongly affected by their emotions, which are influenced by several physical and mental factors. There is a strong relationship between emotion and environment, people might behave differently according to how space impacts their emotional response. The goal of this study was to examine the understudied human–landscape interaction from a psychological perspective, even though this field has been overlooked in the majority of prior research. In data collection process many variables could be considered when studying landscape effects on human emotions and psychological states, such as age and social, educational, and cultural backgrounds, however, this research focused on university campus students' emotions, whose ages and cultural backgrounds are mostly similar (Hani et al., 2020).

The studies review highlights the limited focus on outdoor areas in schools and emphasizes the importance of outdoor campus design in promoting students' health and academic performance. It mentions that well-designed outdoor environments, including green spaces, can help reduce student stress and enhance their social behavior and academic achievements. It also discusses the impact of factors such as student background, school size, class size, and teacher quality on students' performance. It suggests that socio-economic status and family background strongly influence student outcomes, while smaller schools and class sizes are generally beneficial. Additionally, teacher quality plays a significant role in student academic achievement.

The studies review highlights the lack of focus on the outdoor physical environment in schools compared to indoor features. It emphasizes that a well-designed outdoor campus with green areas and landscape elements can reduce student stress, enhance academic performance, and improve social behavior. The review also mentions the importance of designing outdoor spaces based on principles such as inclusiveness, context, and character. Furthermore, it discusses the factors that influence students' academic performance, including student background and socio-economic status, school size, class size, and teacher quality. It suggests that socio-economic status and family background strongly affect student performance, while smaller

schools, smaller class sizes, and high-quality teachers have positive impacts (Schutte et al., 2017).

When designing a clinical trial to compare the efficacy of two or more treatments, an essential step is the calculation of a sample size which will allow a reasonable chance (power) of detecting a predetermined difference (anticipated effect size) in the outcome variable, at a given level of statistical significance. One method of assessing the psychological aspect of QOL which has been widely used in studies of cancer patients is the Hospital Anxiety and Depression Scale (HADS). The HADS is a patient self-assessment questionnaire designed for use with physically ill patients using a time frame of the past week. It is comprised of 14 items and each item is a four-point categorical scale. For example, the question: 'I still enjoy the things I used to enjoy' has responses: 'Definitely as much', 'Not quite so much', 'Only a little' and 'Hardly at all', which score 0, 1, 2 and 3 respectively. HADS divides into two seven-item subscales for scoring and analysis, covering the two domains of anxiety and depression (Julious et al., 1997).

METHODS & DATA COLLECTION

Research area

The research focused on four universities: Shahjalal University of Science and Technology, Jahangirnagar University, Jagannath University, and Ranada Prasad University. Of these, Jahangirnagar University has the largest proportion of public green space, followed by Shahjalal University of Science and Technology University. Jagannath university campus and Ranada Prasad University has the smallest proportion of public green space.

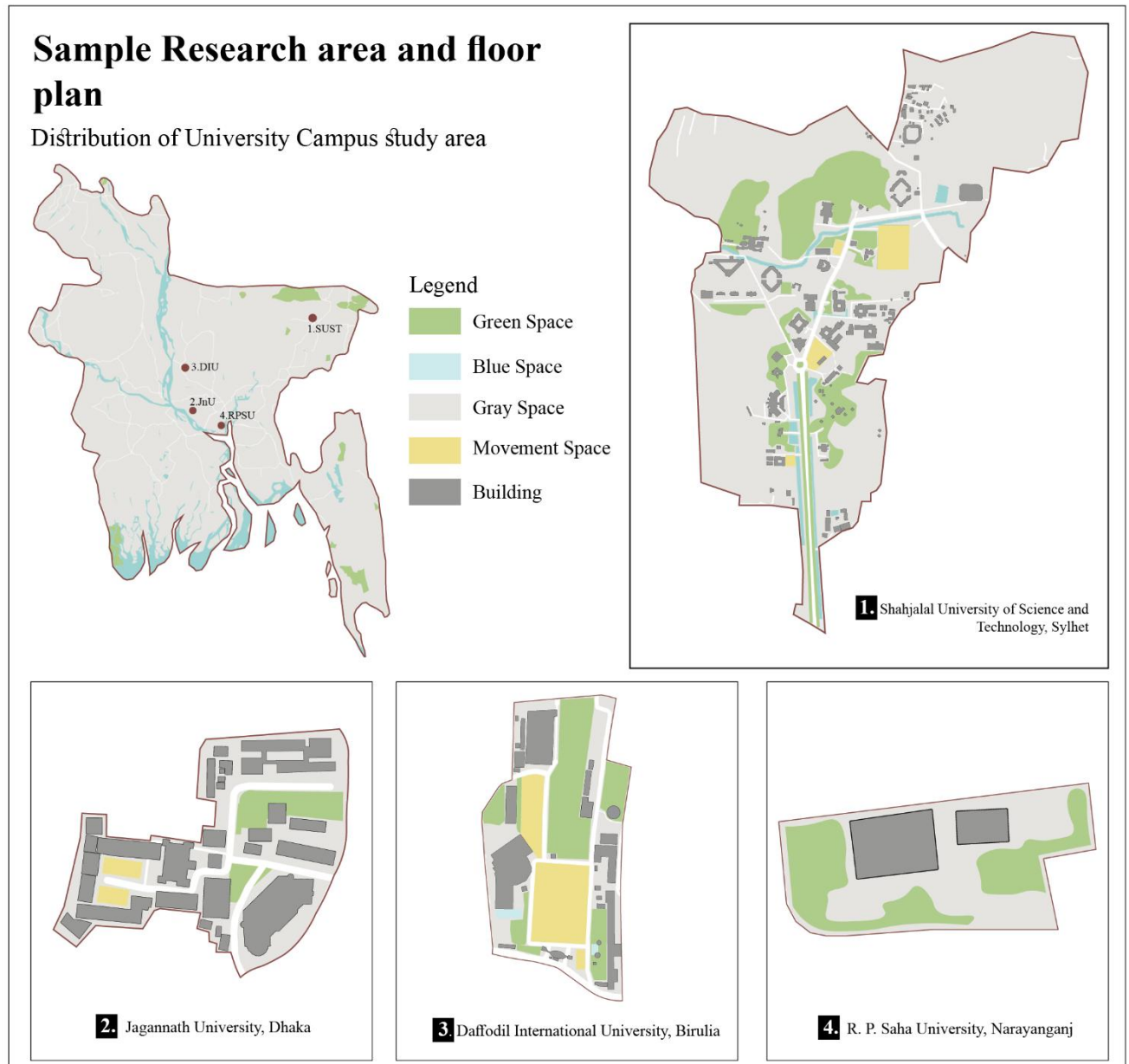


Figure 1: Sample Research area and floor plan.(Xu et al., 2024)

Data collection

All university students, including undergraduates and graduate students, can use Questionnaire Star, an online platform, to perform the study. There was no commitment to participate, and withdrawal was possible at any moment.

The study's purpose was to investigate the connection between pro-social conduct, university students' perceptions of campus landscape types, and their sense of restoration in these settings. The participants were sent an online survey based on the landscape elements they see at their colleges to fill out.

There were three sections on the questionnaire. Basic biographical data and information on the university's category were gathered in the first section. To determine whether students would be interested in attending university depending on the quality of the campus environment, the second component collected attendance statistics. To score the perceived demands for campus landscapes and the quality of the design, a five-point Likert scale was used, with 1 being extremely poor and 5 representing excellent. In the second phase, four aspects of campus landscapes—accessibility, public gathering places, enjoyability, and compatibility—were examined to assess the psychological recovery that was felt there. Using a five-point Likert scale (1 being extremely terrible and 5 being excellent), this component also evaluated the pupils' attendance percentage. The HADS was utilized in the third portion to assess the participants' mental health.














TYPOLGY	SAMPLE PHOTOS(public designed,SUST campus, image source-google maps)	SAMPLE PHOTOS(public undesigned campus, Jagannath University, image source-google maps)	SAMPLE PHOTOS(private designed, Daffodil International University-DIU, image source-google maps)	SAMPLE PHOTOS(private undesigned, R. P. Saha University,image source-google maps)	Characterization
Green space					Public-designed campus is greener, while undesigned ones in the city have less greenery.
Blue space		-----		-----	The blue patch is absent in all three campuses
Gray space					The space mainly features hard-paved walkways, extra seating, and minimal greenery
Movement space				-----	campuses far from the capital city have more sports zones

Table 1: Environment and characteristics within the research campuses (Xu et al., 2024)

Hospital Anxiety and Depression Scale (HADS)

HADS (Hospital Anxiety and Depression Scale) is a popular self-assessment instrument for determining anxiety and depression levels in both clinical and non-clinical contexts. The 14-item scale, which was created by Zigmond and Snaith in 1983, is separated into two subscales: seven items measure anxiety (HADS-A) and seven items measure depression (HADS-D). The respondent can indicate the degree to which they encounter particular symptoms by scoring each item on a 4-point Likert scale. (Beekman & Verhagen, 2018)

The research paper employed the Hospital Anxiety and Depression Scale (HADS) as a research tool to assess levels of anxiety and depression among the participants. A popular tool for rapidly and simply identifying possible psychological distress in patients is the HADS questionnaire. Clinicians must evaluate patients for anxiety and sadness, particularly when treating patients with chronic illnesses. Pre-existing anxiety or depression in physiotherapy can impact the efficacy of the treatment and, ultimately, the final results. For use in clinical practice and research, the HADS is regarded as a valid and trustworthy tool. HADS is Important because of its simplicity, focus on emotional and cognitive aspects. To implement the HADS methodology, the researchers administered the questionnaire to the participants. The HADS consists of 14 items, with seven items related to anxiety symptoms and seven items related to depression symptoms (Julious et al., 1997). Each item is scored on a 4-point scale, allowing participants to rate the severity of their symptoms. The scores for anxiety and depression are calculated separately, providing quantitative measurements for each construct.

It is ensured that the HADS questionnaire was administered following established guidelines to maintain consistency and reliability. The questionnaire was either distributed in a printed format or administered electronically through an online survey platform.

Participants were informed about the purpose of the study and provided with clear instructions on how to complete the HADS questionnaire. To encourage honest and accurate responses, confidentiality and anonymity were assured. Participants were given an appropriate timeframe to complete the questionnaire, and any questions or concerns were addressed promptly.

Features of Restoration Environments

The body of research and scientific evidence concerning the rejuvenating environment and its impact on fatigue is expanding. The discoveries are occasionally astonishing. Upon returning from natural surroundings, individuals exhibit enhanced performance compared to control

groups. Recent scientific investigations have revealed their increased proficiency in tasks requiring heightened focus. Semprich's research further supported these findings, demonstrating that students residing in dormitories with scenic landscapes displayed improved performance in their academic responsibilities and assignments.

According to Kaplan's research, a healing setting has the following characteristics:

- the capacity to promote understanding and comprehension.
- chances for investigation and learning.
- encouraging leisure and enjoyment.
- promotion of public involvement.
- conformity to the desires and goals of people.

The desirability of an environment can be achieved by incorporating the five factors. Similarly, concerning these factors, the indicators of Attention Restoration Theory (ART) are defined as remote, expansive, attractive, and adaptable. The interrelation between the ART indicators and the environmental desirability conditions can be established by considering these five indicators in landscape design. This ensures that the environment, catered to university students, is initially graspable and discoverable, subsequently promoting relaxation and enjoyment while adhering to human desires. By considering the prospect of public involvement in the decision-making process, the environment is eventually brought closer to its intended audience. According to the theoretical foundations of research, this presence of individuals in the environment restores the mind and instills educational motivation in students (Hajrasouliha, 2017).

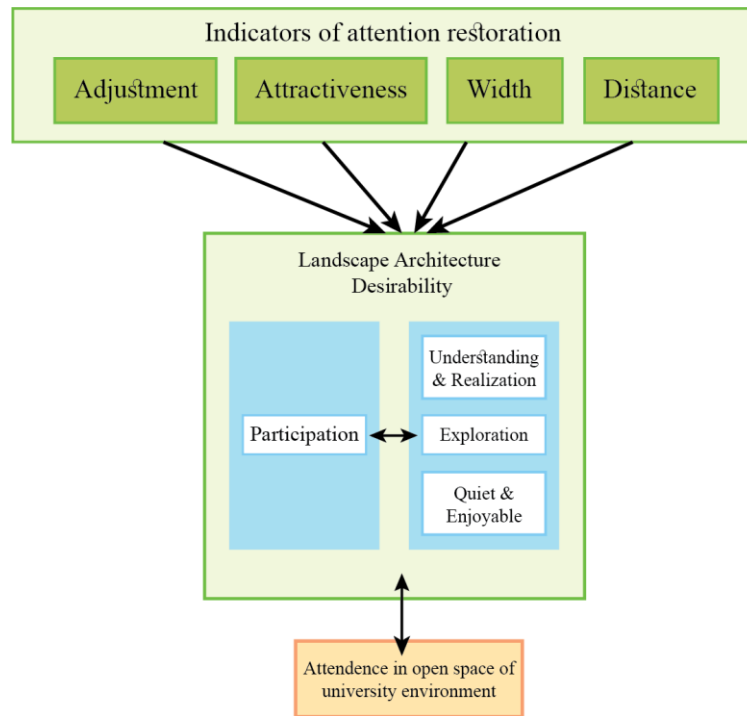


Figure 2: Conceptual Model of attendance of attention Indicators & Landscape desirability(Ghorbanzadeh, 2019)

The survey technique employed in this research paper involved the utilization of Google Forms to conduct the survey. Google Forms was selected as the survey platform due to its ease of use, accessibility, and efficient data management capabilities. A customized questionnaire was created using Google Forms, tailored specifically to address the research objectives and gather the required information from participants.

To distribute the survey, the researchers shared the Google Forms survey link with the target participants. This could have been done through various channels such as email, social media platforms, or direct communication. Participants were able to access the survey at their convenience, allowing for flexibility in their response time.

Data Analysis Techniques

Once the participants completed the HADS questionnaire, the researchers collected and recorded the responses for further analysis. The data obtained from the HADS scores were analyzed using statistical techniques appropriate for the study's objectives. This analysis involved calculating descriptive statistics, such as means and standard deviations, to understand the overall levels of anxiety and depression in the sample. Furthermore, inferential

statistics, such as correlation analysis or group comparisons, may have been employed to examine relationships or differences between variables of interest.

The HADS methodology provided a structured and standardized approach to assess anxiety and depression levels within the research population. Its established reliability and validity allowed for meaningful comparisons across studies. By employing the HADS, the researchers were able to gather quantitative data on anxiety and depression, which contributed to a comprehensive understanding of participants' psychological well-being.

In conclusion, the use of the HADS as a research methodology in this paper ensured a systematic assessment of anxiety and depression. The methodology provided a standardized approach to collecting and analyze data, enabling researchers to gain insights into the psychological profiles of the participants. The results obtained from the HADS questionnaire supported the research objectives and contributed to the overall findings and conclusions of the research paper.

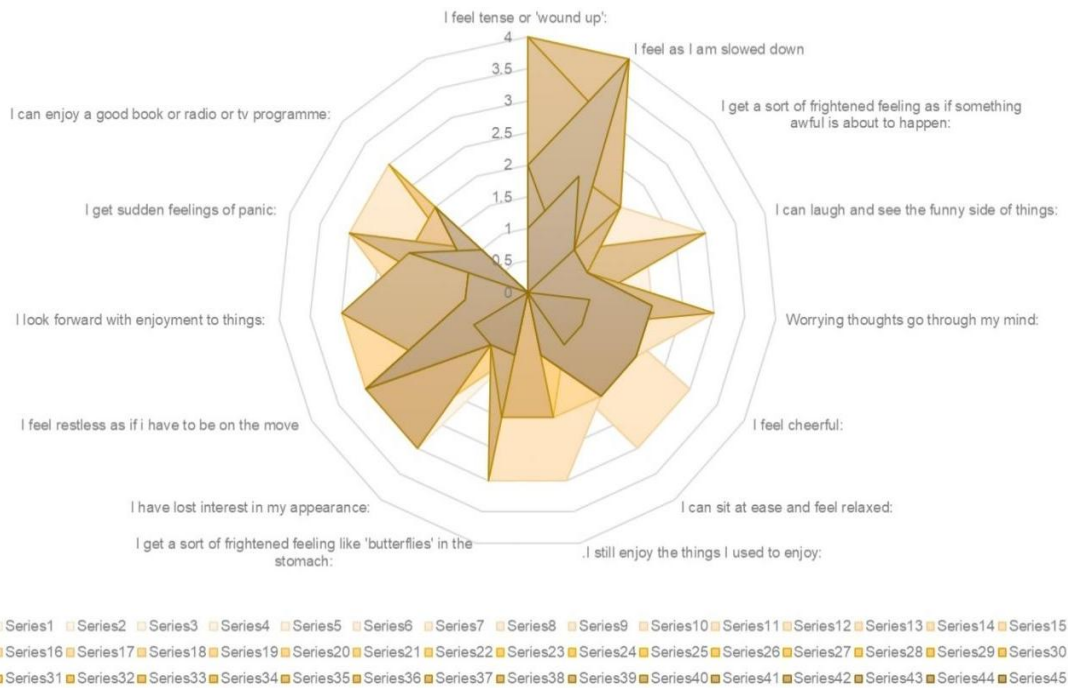
RESULT

58 students from public universities (including public medical colleges) and 40 students from private universities (including private medical colleges) & 2 other institutions were surveyed regarding the components of landscape desirability on their campuses and HADS (Hospital Anxiety and Depression Scale).

Here are the facts we can observe from the radar charts provided:

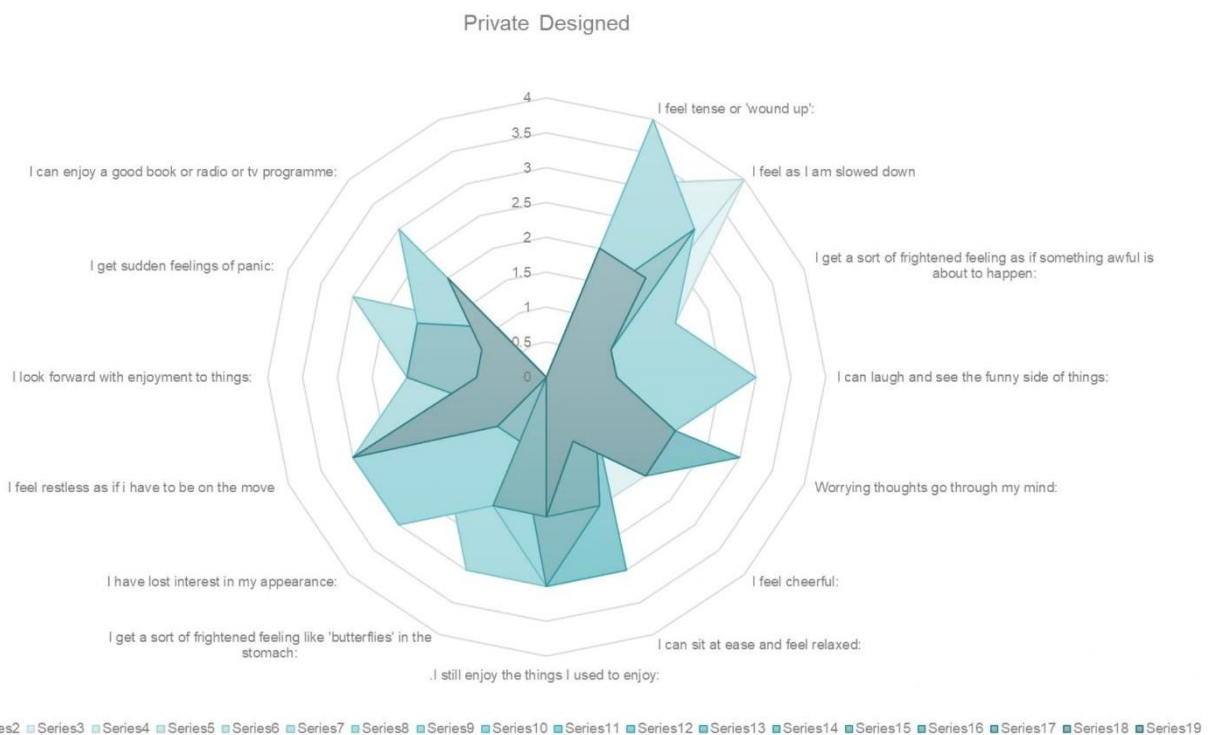
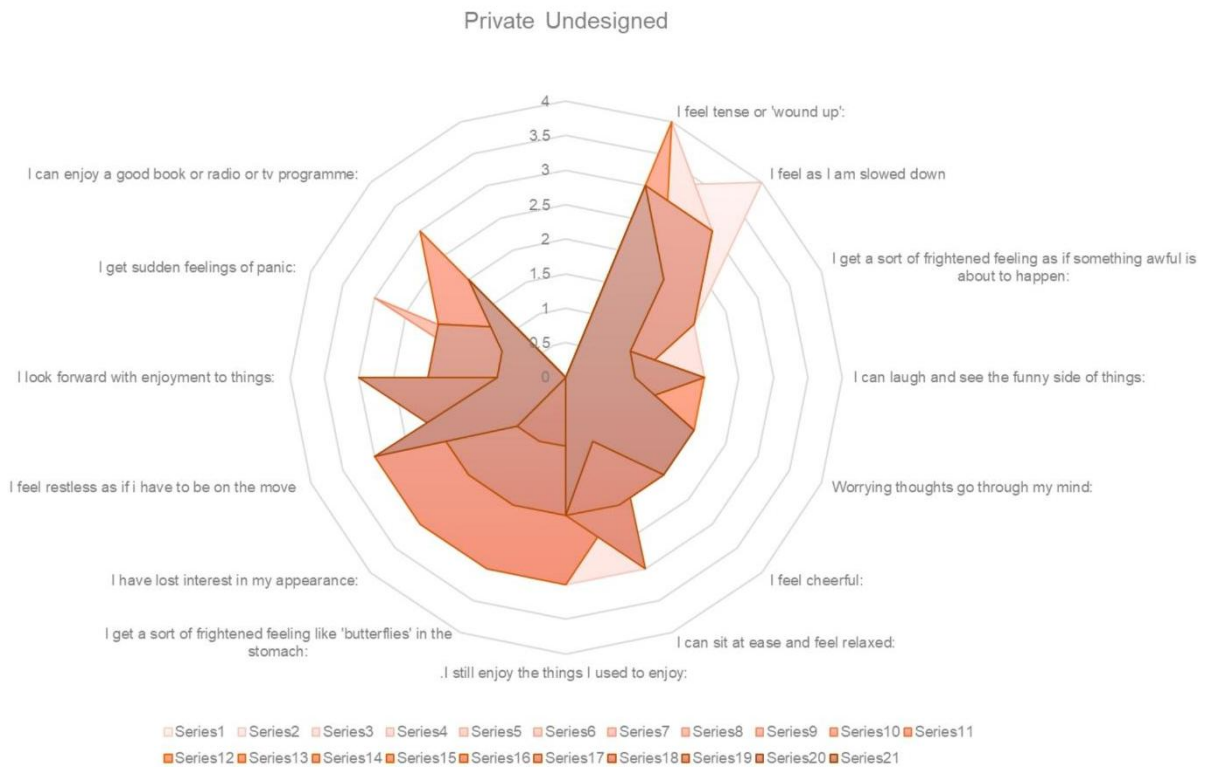
Survey-Based Emotional and Psychological Response Analysis(figure 03-06):

Public Designed



Public Undesigned





The charts, derived from survey responses, visually represent varying psychological states such as enjoyment, relaxation, anxiety, and cheerfulness. They highlight distinct patterns of emotional well-being influenced by the spatial design of campus environments.

The results obtained from the research study indicate significant differences in the levels of depression and anxiety between designed and undesigned public campus students:

Table with 13 columns: 11 HADS subscales (I feel tense, I feel as if I get a sort, I can laugh, Worrying, I feel cheer, I can sit at, I still enjoy, I get a sort, I have lost, I feel restless, I look forward, I get sudden, I can enjoy a good book), SUM, NO. OF STUDENTS ANXIETY, and NO. OF STUDENTS DEPRESSION. The table shows individual student scores and aggregate statistics for the 'PUBLIC DESIGNED' group.

Table 2: designed public campus (HADS analysis)

In the designed public campus group, the average depression level was found to be 0.86, while the average anxiety level was 0.97. On the other hand, in the undesigned public campus group, the average depression level was higher at 0.88, and the average anxiety level was 1.015.

This suggests that students in the designed public campus reported lower levels of depression and anxiety compared to their counterparts in the undesigned public campus. The difference in depression levels are particularly notable, with a substantial disparity between the two groups.

Table with 13 columns: 11 HADS subscales, SUM, NO. OF STUDENTS ANXIETY, and NO. OF STUDENTS DEPRESSION. The table shows individual student scores and aggregate statistics for the 'PUBLIC UNDESIGNED' group.

Table 3: Undesigned public campus (HADS analysis)

These findings imply that the design of the campus environment may have a significant impact on students' mental well-being. The presence of a carefully planned and tailored environment in the designed public campus could contribute to lower levels of depression and anxiety among students. Conversely, the undesigned public campus, lacking such considerations, appears to have higher levels of depression and anxiety.

These results emphasize the importance of creating supportive and conducive environments for students' mental health. It suggests that the design and planning of campus spaces should be considered as a potential factor in addressing and mitigating mental health challenges among students.

Further analysis and exploration of the specific design elements and environmental factors that contribute to these differences would be valuable for future research and for informing campus planning and design practices aimed at promoting student well-being.

The results of the research study highlight the differences in depression and anxiety levels between designed and undesigned private university students:

Among the designed private university students, the average depression level was found to be 1.13, while the average anxiety level was 1.025. On the other hand, among the undesigned private university students, the average depression level was slightly higher at 1.36, and the average anxiety level was 1.16.

PRIVATE DESIGNED														SUM	NO. OF STUDENTS ANXIETY	NO. OF STUDENTS DEPRESSION
I feel tense	I feel as if I get a sort	I can laugh	Worrying	I feel cheer	I can sit at	I still enjoy	I get a sort	I have lost	I feel restless	I look forward	I get sudden	I can enjoy a good book				
1	2	0	0	1	0	2	1	1	3	2	0	1	1	15	8	7
4	3	2	0	2	2	2	3	0	0	1	1	2	2	24	13	11
3	4	2	1	1	1	2	1	2	0	2	2	2	1	24	14	10
3	4	1	0	2	1	1	2	1	0	1	1	2	2	21	11	10
1	3	2	0	3	1	2	0	0	3	3	0	0	3	21	11	10
2	1	1	2	1	1	1	2	1	1	1	2	1	1	18	8	10
0	1	2	0	2	0	2	1	3	1	3	0	0	1	16	12	4
0	2	0	0	2	1	2	3	3	2	3	2	3	1	24	13	11
4	3	2	3	2	1	3	3	2	3	3	1	2	3	35	18	17
1	1	0	0	2	1	2	0	1	0	2	2	1	1	14	8	6
1	1	0	0	0	0	3	3	0	1	0	0	0	0	9	4	5
0	1	1	0	0	0	2	3	0	1	2	0	0	0	10	5	5
1	0	1	0	0	1	3	3	0	0	2	0	1	1	13	8	5
1	1	1	1	0	1	2	1	1	1	1	1	0	1	11	4	7
2	1	1	1	3	2	1	1	0	0	1	1	1	1	14	9	5
1	3	1	1	2	1	2	3	1	1	2	2	1	1	22	10	12
1	2	1	0	2	1	2	2	2	0	1	0	1	1	16	10	6
2	2	1	1	2	2	1	2	0	1	3	1	1	2	21	10	11
2	2	1	1	2	2	1	2	0	1	3	1	1	2	21	10	11
SUM														186		163
SD														1.025075778		1.127325541

Table 4: *Designed private campus (HADS analysis)*

These findings suggest that students in the designed private university reported lower levels of depression and comparable levels of anxiety compared to their counterparts in the undesigned private university. The difference in depression levels between the two groups is notable, with designed private university students exhibiting lower levels of depression.

This indicates that the design and planning of the private university campus environment may have a positive impact on student’s mental well-being, particularly depression. However, the observed difference in anxiety levels between the two groups is relatively small and does not appear to be influenced by campus design.

PRIVATE UNDESIGNED														SUM	NO. OF STUDENTS ANXIETY	NO. OF STUDENTS DEPRESSION
I feel tense	I feel as if I get a sort	I can laugh	Worrying	I feel cheer	I can sit at	I still enjoy	I get a sort	I have lost	I feel restless	I look forward	I get sudden	I can enjoy a good book				
3	2	1	2	2	2	2	2	1	1	2	1	2	0	23	13	10
2	3	2	0	0	0	3	3	2	1	3	0	0	3	22	12	10
3	4	2	2	2	2	1	1	1	3	2	2	2	3	30	13	17
4	3	1	1	2	1	2	2	1	1	1	2	1	1	23	13	10
3	1	1	1	2	2	1	2	1	1	1	1	1	2	20	10	10
1	1	1	2	0	1	2	1	1	1	1	2	2	1	17	8	9
3	1	1	2	1	1	1	1	1	1	1	2	2	2	20	10	10
3	2	1	1	2	1	1	1	1	1	2	1	2	2	18	9	9
2	2	0	1	2	1	2	1	1	1	1	3	0	1	17	10	7
2	2	1	1	1	1	1	1	1	1	1	1	1	1	16	8	8
2	1	0	2	1	1	1	1	1	1	1	1	2	1	16	7	9
3	2	1	2	2	1	1	2	1	1	2	2	1	2	23	11	12
4	2	1	1	2	1	2	2	1	1	2	2	1	2	24	13	11
1	1	0	2	2	2	1	1	1	1	1	2	1	2	17	6	11
2	1	2	1	2	1	1	1	2	3	2	1	2	3	24	13	11
2	3	2	0	1	1	2	3	3	3	3	0	2	0	25	15	10
3	3	1	1	1	2	2	1	2	1	1	2	1	1	22	11	11
3	3	2	1	2	1	3	2	1	0	2	1	2	1	22	13	9
2	1	1	2	0	2	2	2	2	2	2	2	1	1	23	11	12
2	1	1	2	1	1	0	1	1	1	2	3	0	2	18	7	11
3	2	1	1	2	2	1	2	0	1	3	1	1	2	22	11	11
SUM														224	218	
SD														1.116928447	1.364119692	

Table 5: Undesigned private campus (HADS analysis)

These results highlight the importance of considering the design and layout of private university campuses to create a supportive and conducive environment for student’s mental health. It suggests that carefully planned and tailored environments in designed private universities may contribute to lower levels of depression among students.

Further investigation into the specific design elements and environmental factors that contribute to these differences would be valuable for future research. Additionally, exploring additional variables and conducting longitudinal studies could provide a more comprehensive understanding of the relationship between campus design and mental health outcomes among private university students.

The findings of this research study suggest that both designed public campuses and designed private universities have lower levels of depression and anxiety compared to their undesigned counterparts.

In the case of public campuses, students in the designed campuses reported significantly lower levels of depression (0.86) and anxiety (0.97) compared to students in the undesigned campuses (depression: 0.88, anxiety: 1.015). This indicates that the thoughtful design and planning of public campuses can contribute to better mental well-being among students, potentially creating a more supportive and conducive environment.

Similarly, among private universities, students in the designed campuses displayed lower levels of depression (1.13) compared to students in the undesigned campuses (1.36), although the difference was relatively small. However, there are difference in anxiety levels between the designed (1.025) and undesigned (1.16) private university students.

These findings suggest that campus design plays a more prominent role in influencing depression levels compared to anxiety levels. The results highlight the importance of considering the design and layout of educational institutions to support students' mental health, particularly about depression.

Further research is needed to explore the specific design elements and environmental factors that contribute to these differences in depression and anxiety levels. Additionally, examining additional variables and conducting longitudinal studies could provide a more comprehensive understanding of the impact of campus design on student well-being.

Overall, the findings of this study emphasize the significance of creating well-designed campuses as a potential strategy for promoting better mental health outcomes among students.

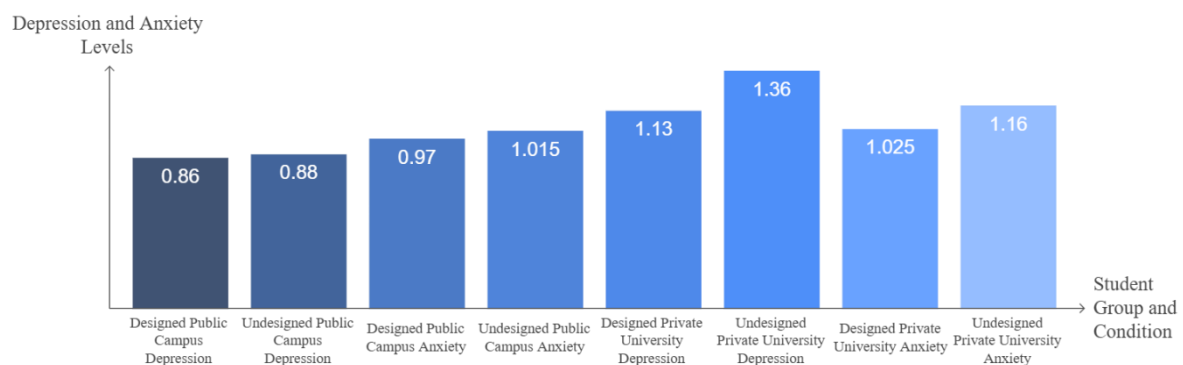


Figure 7: Impact of Campus Design on Mental Well-Being

DISCUSSION

The research study found significant differences in depression and anxiety levels between designed and undesigned public campus students. Designed public campus students reported lower depression (0.86) and anxiety (0.97) levels compared to undesigned public campus students (depression: 0.88, anxiety: 1.015). This suggests that the design of the campus environment influences mental well-being. Similarly, among private university students, designed campuses had lower depression (1.13) levels compared to undesigned campuses (1.36). However, anxiety levels did not differ significantly (designed: 1.025, undesigned: 1.16).

Further research is needed to explore specific design elements and environmental factors influencing these outcomes. Creating well-designed campuses can be an effective strategy for supporting students' mental well-being. However, the impact on anxiety levels was relatively small. The findings emphasize the importance of campus design in promoting student mental well-being, particularly regarding depression.

Practical solutions for enhancing academic motivation through university landscape design include:

- -incorporating natural materials and rounded settings for socialization.
- designing academic signs and elements that align with educational concepts to establish spatial identity and a sense of belonging.
- careful consideration of the university entrance design and location.
- Provide stopping points and seating areas along walking paths.
- creating enclosed spaces adjacent to open areas to facilitate diverse activities.
- ensuring pleasant views from classroom windows for fatigue relief and viewer satisfaction.
- incorporating small, enclosed spaces alongside larger ones to enhance tranquility and enjoyment
- using level differences like stairs and ramps to create an inviting atmosphere
- using vegetative coatings near water for relaxation and mental comfort, establishing pavilions and shaded areas to promote outdoor education and climate relaxation.
- employing natural and vibrant colors for visual appeal and a welcoming environment.
- integrating natural elements such as trees and plants in open space design.
- placing couches in suitable shaded areas, dividing large spaces into smaller ones to create an ecological attraction and a sense of belonging, and actively involving students and staff through visual and understandable questionnaires to shape and evaluate the university landscape design.

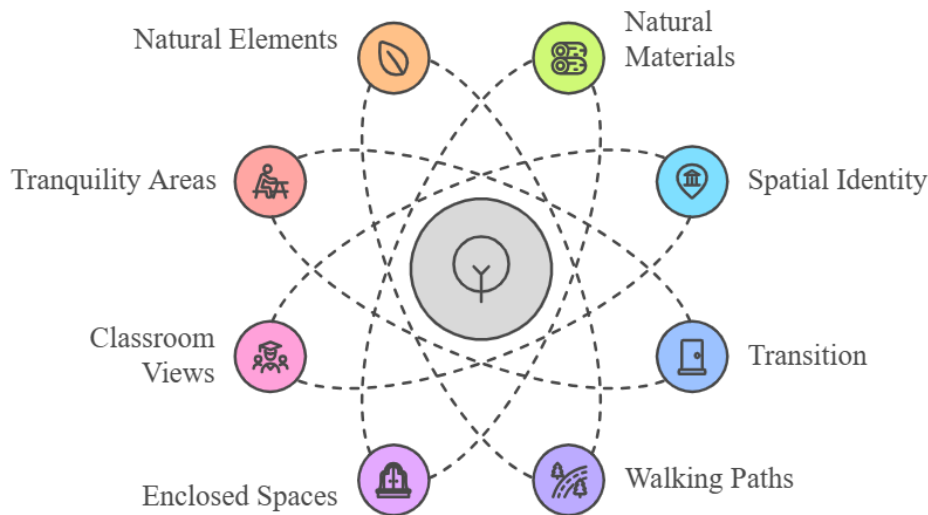


Figure 8: Enhancing Academic Motivation through Landscape Design

CONCLUSION

University students frequently deal with strong emotions and pressure to perform well, but they can also have weaker work ethics, willpower, and self-control, which can cause dissatisfaction and worry. Many of the campus landscape designs that are in place now put aesthetics ahead of students' psychological requirements, which makes these fears worse. In order to improve and innovate campus designs to assist reduce student anxiety, this social psychology-based study explores how campus landscapes affect students' psychology and behaviour.

The study indicates that well-planned, scientifically informed campus landscapes that suit students' tastes can produce restorative environments based on HADS analysis and visual questionnaire data. These areas improve students' general motivation on campus in addition to helping them recover their focus. The absence of appealing features in open spaces on private or poorly planned campuses makes students reluctant to interact with them. Therefore, well-designed landscapes have the potential to improve academic motivation and student involvement.

According to the research, carefully considered landscape architecture may greatly enhance students' well-being. Universities can increase student engagement and motivation by establishing settings that support psychological healing. In addition to enhancing the educational experience for students, well-designed, healing environments can promote more general academic and social results. It calls for greater focus on academic campuses in both

research and real-world landscape design implementations, emphasizing the need for more thorough studies into the ways that physiological and environmental elements affect campus life.

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