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## Study of Education Policy on Digital Leisure and Student Wellbeing in Higher Education Departments

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### ABSTRACT

**Background:** Adoption of digital leisure activities like using social networks, gaming, and streaming during leisure time has taken course among the students and this has created question marks on the health benefits of the students. In higher education, education policies are the key drivers of digital technologies and an inviting learning environment.

**Objective:** To address the Research Questions, we will use mediation analysis to assess the relations between the independent variables, education policy implementation, digital literacy, and availability of digital resources for students; the dependent variable of student well-being, and the moderate variable of digital leisure habits in higher education departments.

**Methods:** A quantitative research approach was used in the present study as the data was collected through a Likert scale structured questionnaire. It comprised various sections on the implementation of policy on education, digital literacy, availability and usage of digital resources, digital recreational activities, and student welfare. The participants consisted of 355 students from various higher education institutions. Analyses of correlational patterns and mediation were performed using

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statistical tools.

**Results:** The results suggest a positive association between education policy enactment and digital readiness with measured recreational technology usage. Notably, high levels of digital leisure are associated with poor student well-being but effective policies as well as resources countervail these findings. Technology ownership too was seen to affect digital leisure habits but revealed in a democracy that the prevalence of technology counts.

**Conclusion:** Diet digitalization policies that would help to promote more positive digital leisure practices improve students' well-being through the education policies designed. This paper concludes by noting that entry into HEI requires the adoption of top down-bottom-up multipronged interactive approach that involves policy, education, and resources to prepare and enable students to manage and lead their digital lives.

**Keywords:** Social Education Policy, Gaming Technology, Learner Outcomes, University Learning, Computer Competence, Psychological Health, Academic Achievement

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## INTRODUCTION

The advancements in diffused technology have impacted the lives of students in higher education institutions in the following ways. Internet and social media browsing, playing video or computer games, and content watching, known as digital leisure, presented themselves as essential daily experiences among students. As entertaining, social, and at times informative, these activities raise questions among educators and policymakers, regarding the effects on children's mental health, academic performance, and overall well-being. In this respect, Policy Co-ordination for Higher Education Institutions also has a vital task of addressing the issues and perspectives of the social use of digital leisure. Several educational policies aimed at moderating digital behavior, raising awareness, and fair distribution of digital resources will help students develop a satisfactory academic and personal learning balance. However, such policies may prove useful only to the extent that they eliminate the risks of negative impacts of excess free time on students (Alonso Ruiz et al., 2022).

This paper aims to involve the analysis of education policy implementation, digital literacy, access to material and digital resources, and students' wellbeing and PLE (Personal Learning Environment) leisure activities as a moderating variable. Thus, by studying these variables this research will try to contribute to the understanding of how higher education institutions can support student success of an academic and emotional nature. The continued advancement of digital technology in day-to-day life has greatly influenced how students within higher learning institutions learn and participate in their other functions. The type of leisure that could be best described as spending time on social networks, playing computer games, and watching videos or shows has also become intrinsic to the lives of students. These activities while entertaining students, helping them make new

friends and occasionally imparting knowledge, pose a lot of negative effects on the students' psychological well-being, performance, and health (Martzoukou et al., 2020).

These activities have therefore posed a need for higher education institutions to draw learning on these aspects and come up with good policies that would help regulate the level of aggression from going a rod. Hence, it is clear that higher education is perfectly situated to engage with the messiness of digital leisure. Since universities and colleges are training institutions that equip learners to become academically productive as well as socially responsible citizens, they have a crucial role in establishing and maintaining social uses of technology. Nevertheless, digital leisure is practically ubiquitous and results, as such, in the expanded time spent on gadgets, distraction, and lack of attention to academic work. The research surrounding RL has rendered positive associations between only and negative impacts such as stress, anxiety, and sometimes academic performance (Sun et al., 2021).

These outcomes underscore the significance of the institution-adopted policies that recognize the conflict that digital technology poses not simply, but refer to the optimization of beneficial healthy habits among students. In light of this, competencies concerning digital well-being, literacies, and educational policies that center on a fair distribution of educational resources go a long way in addressing the impact of digital leisure. E-learning policies that seek to increase student's technological competency impart skills enabling the students to evaluate and appropriately utilize technology to meet their academic and personal objectives. However, this availability of internet and technology resources guarantees that students from poor backgrounds have an equal chance to compete in a technological world. However, the enforcement of these policies relies on the ability of the formulated policies to change the student's behavior and promote appropriate use of the available technological instruments (El Masri & Sabzalieva, 2020).

Running as a focus of this study is a contextual analysis of education policy implementation, digital literacy, access to the necessary digital resources, and the well-being of students where the role of leisurely digital habits is considered as a moderator. As a result, recognizing the practices of these elements might help to comprehend how institutions can contribute to the student's success amid the growing number of challenges in the digital environment. For instance, although digital leisure can be useful in a cause such as relaxation or social relationships, it will cause other effects like Procrastination and poor academic performance due to misuse. To meet these dynamics, a delicate balance has to be achieved, because different forms of students' behavior are possible and probable (Agasisti & Soncin, 2021).

This research aims to address critical questions: Education policies therefore raise these questions, about how they influence digital leisure patterns. How does digital literacy work about students' interpretation of what constitutes leisure? In what way does learning experience in a digital environment affect students' success

and welfare? And what activities can be employed in higher education institutions to mitigate the advantages and disadvantages of digital leisure? Answering these questions, the study contributes to the understanding of digital transformation in and outside of education, and its role within students' life experience. Therefore, it is anticipated that the study's outcomes will inform higher learning institutions towards the establishment of an environment that fosters learner success, mental health, and comprehensive well-being in a world that is rapidly going digital (Silk et al., 2020).

## **LITERATURE REVIEW**

The role of digital technology in enhancing/ affecting students' well-being in colleges and universities has been a focus of considerable scholarly interest in the recent past. The application of technologically advanced devices in the learning process without any doubt has altered the educational system making numerous benefits and learning facilities available for students. However, people are busy with different kinds of activities especially social networks, gaming sites, and viewing services that are taking a big part of leisure time. Such challenges are amplified by the blurring of academic and leisure time use of digital technologies, prompting a need to parse out the relationship between education policies and institutions and students' well-being in the digital society (Godber & Atkins, 2021).

### **Effectiveness of Digital Leisure as a Source of Well-Being of Students**

It has been suggested that engagement in digital leisure does have the potential influence on the well-being of the student. On the one hand, these activities may be seen as a means of rest and communication, as well as inspiration. For instance, traditional lecture theatres allow students to have long-distance relationships, posturing, and discourse, as well as the sharing of academic information. Like any other extra-/co-curricular activities, online games, and streaming services can equally function as an oxide that alleviates student stress momentarily while they focus on their academics. Research has also found that students' digital leisure is valuable in cultivating social relations, especially during the lockdown, caused by the COVID-19 virus (Stone, 2019).

On the other hand, researchers have linked increased participation in digital leisure activities with the following negative results. Other studies reveal that the reasons associated with increased anxiety severities, depression, and incompetence in students are social site overuse. One relevant problem that intensified due to the constant usage of curated content is the fear of missing out (FOMO). Furthermore, shows bingeing also affect negatively students' sleep quality, health, and academic productivity due to the effects of high screen time, the same is true with cases of long games. Thus, the reported findings call for overcoming excess entertainment engagements on social media, learning along with other daily tasks, and the connection that can be provided by education policies (Alenezi, 2023).

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and colleges have realized the need to stem the influence of leisure use of digital resources on the welfare of their learners via specific policies. Public policies that educate students on the healthier use of digital technology are being put in place to ensure that students improve their use of digital technology. For example, some universities have banned the use of mobile phones during lectures to reduce interference and, therefore, improve learning. Some of them have implemented workshops and material related to digital competence and time management to enable learners to self-govern and manage their digital habits (O'Shea et al., 2021).

Specifically, digital literacy has been raised as an essential thing to weigh on that hurts productivity during leisure. Based on several works, a student with higher levels of digital literacy interacts more effectively with technology by using it for learning, discerning news or information from social media more critically, and regulating their screen time appropriately. It is therefore important to ensure the execution of educational policies that include training on digital literacy not only helps enrich academic functions of course, but also prepares the learners for various experiences in the digital world securely (Aristovnik et al., 2020).

#### **Collection of digital resources and equalization**

Acquisition of digital resources occupies a special place in the learning process as well as in students' lives affected by them. Restriction of technological resources, also famously known as the digital divide is still a challenge to many students and the most affected are those with humble backgrounds. This has been working in attempting to solve this problem by offering laptops, internet, and other tools as a means of leveling the playing field of participation in some activities related to learning. However, we have imbalances in achievement and student options for searching information, and students who lack digital devices may worsen their performance and stress (Wood et al., 2019).

Also, digital resources to which students gain access determine their level of involvement in digital leisure activities. Those students with abundance may engage more in non-academic uses of technology, which may in turn result in; procrastination and other ills. On the other hand, restricted student connection can intensify such challenges as isolation and influence the rights of students to engage as full-fledged members of the academic community and extra-curricular activities. These dynamics show some of the reasons why special emphasis is necessary on policies that foster not only equal participation but also proper use of digital assets (Händel et al., 2020).

This paper argues that the availability of Digital Leisure plays an intermediary role in the well-being of students.

Research about how students' information leisure mediates the effect of educational policies on student welfare is an emerging field of study in scholars. It was also found that policy approaches to education can only improve or reduce students' well-being depending on their impact on students' digital practices. For instance, measures that can promote the appropriate use of technology in students' friendly activities can enhance students' well-being since they reduce pressure due

to working balances. Likewise, institutions that adopted DWI into their framework indicated that DWI interventions led to improvements in student interest and satisfaction (Watermeyer et al., 2021).

However, policy-oriented approaches may also have a limited impact depending on the institution's culture, students' profile, and behavioral change. Self-generated findings reveal that student policies that may be developed without attaining an understanding of these groups may not perform their desired functions. For example, general prohibitions of using gadgets in class can harm students who need to use the gadgets given note taking or specific learning needs. Consequently, the strategies applied to pre-service teachers should be sensitive to the different roles that they subjectively employ the digital technology (Bonfield et al., 2020).

### **New Directions and Void in Literature**

This literature review advances knowledge regarding the association between digital leisure and students' well-being; nevertheless, some gaps are identified in prior scholarship. Second, the majority of studies correspond only to the negative objectification of the determinants of digital leisure. Further research is warranted to examine the approach to the use of digital leisure as a resource for effective improvement of the quality of life and as a means of strengthening students' communities. Second, the matter of how culture and geographical location influence the ways people interact with digital technologies and how that influences their health remains barely researched. The policies are implemented in institutions of higher learning in different cultural settings making it very difficult for a policy model to work across different institutions (Averill & Major, 2020).

Further, the long-term ramifications of digital leisure on students' psychological well-being and /or learning progression need further research. The immediate effects of technology have been researched however the changes in behavior that a university student cultivates during their study, and how this affects their future health and overall career progression must be studied with follow-up research. Last of all, it is suggested to scrutinize the impact of digital leisure as a concept in combination with other factors including SES [socioeconomic status], gender, and the field of study to create more extensive as well as more specific prevention and intervention messages (Polly et al., 2021).

### **RESEARCH METHODOLOGY**

This work employs a quantitative method of research to establish the connection between education policies, digital leisure, and students' quality of life at the higher education departments. The approach relies on gathering quantitative information to establish patterns, correlation, or cause-effect connections between parameters which will allow understanding of all the integrated connections between institutional policies on the one hand and their impact on students, on the other hand. The study is therefore anchored on measurable factors such as; education policy enactment, digital literacy, access to digital resources, leisurely

digital engagement, and student well-being to provide an evidence-based, research-validated framework (Elumalai et al., 2021).

A structured survey was used as the major data collection instrument in this study. The survey instrument was developed to provide comprehensive descriptive information on the variables under analysis by using closed-ended questions derived from a Likert scale. The respondents were also required to indicate their level of support, on a 5-point Likert scale, on statements concerning the effectiveness of current policies within the education sector, their understanding of digital skills, as well as their ability to access, use and participate in digital leisure activities and their overall perception of well-being. This method of data collection enabled the collection of numerical data using a five-point Likert scale that ranged from strongly disagree to strongly agree; This way, statistical analysis of such perceived experiences and attitudes could be done easily (Kaputa et al., 2022).

To achieve this, the study helped students randomly from different higher education institutions to achieve a fairly good representation of the subject population. The sample size was calculated to be 355 respondents, to provide the highest possible statistical power while maintaining practicability. Analysis of the research method used during this study identified the following sampling techniques; Convenience sampling and the other one; Stratified Sampling. The reasons for using convenience sampling included accessibility to the participants; the reasons for using stratum included; age; gender; year of study; and field of study. Fortunately, this stratified design enabled the study to consider within-student variation to understand how educational policies and digital leisure patterns affect different groups of students (Aziona & Nhedzi, 2021).

P. Again, ethical considerations were considered in the course of this research. Informed consent was obtained by giving respondents a comprehensible account of the research goals and aims and the intention to maintain their identity anonymous. All participants' consent was sought and respondents were informed about their right to volunteer to withdraw from the study at any time. This served to make sure that only ethical research was conducted and that the participants were telling the truth on the questionnaire (Bashir et al., 2021).

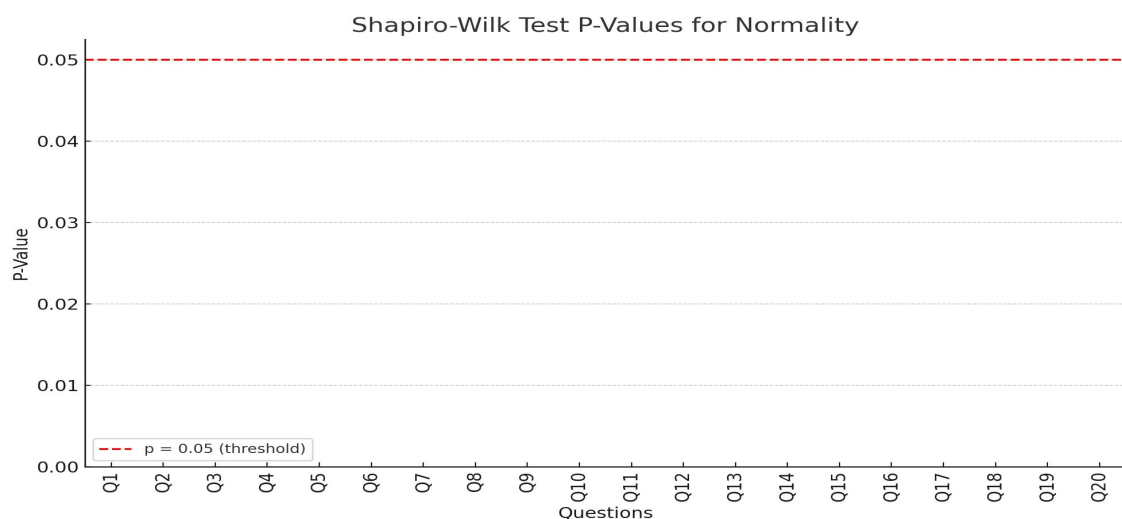
Statistical methods were used to establish a relationship and to validate the hypotheses in the research study. In the present study, descriptive statistics including mean, standard deviation, and frequency distributions were used to describe the amount of variation within the data and general trends. Descriptive statistics and inferential statistics involving correlation analysis as well as multiple regression were used to determine the nature and degree of association between factors. For example, regression analysis was applied to determine the degree, to which educational policies and digital literacy affect digital leisure time and, as a result, student satisfaction. Furthermore, to analyze if digital leisure acts as a mediator between education policies and the obtained well-being indicators, a mediation analysis was conducted (Treve, 2021).

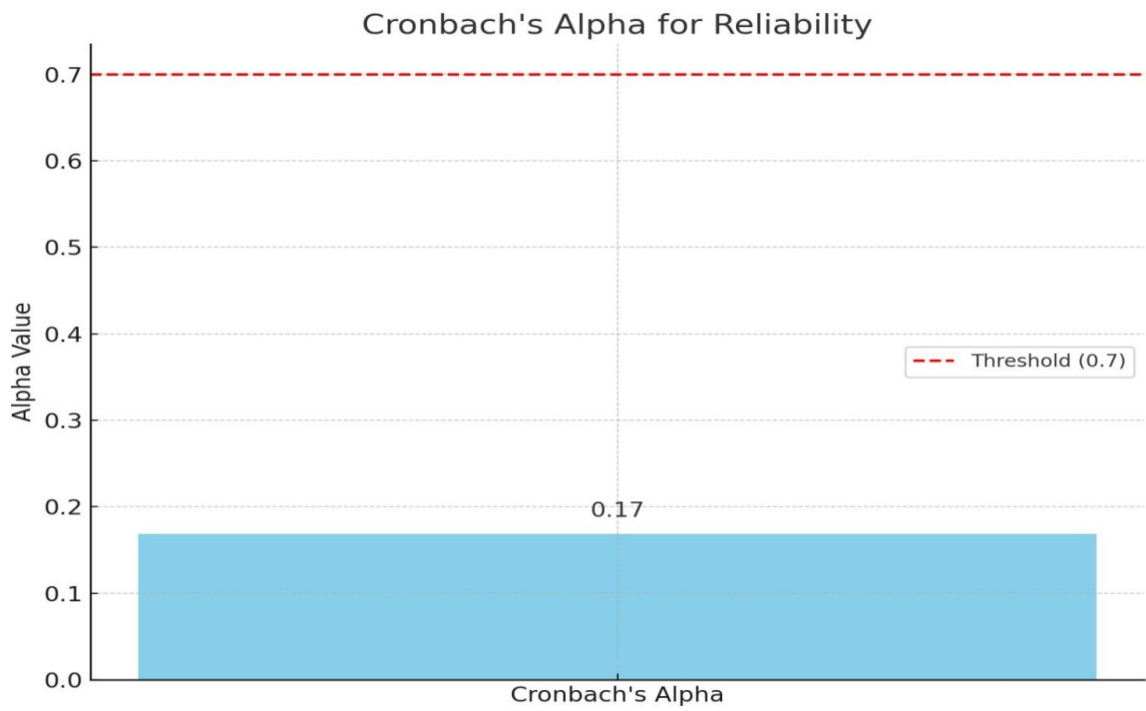
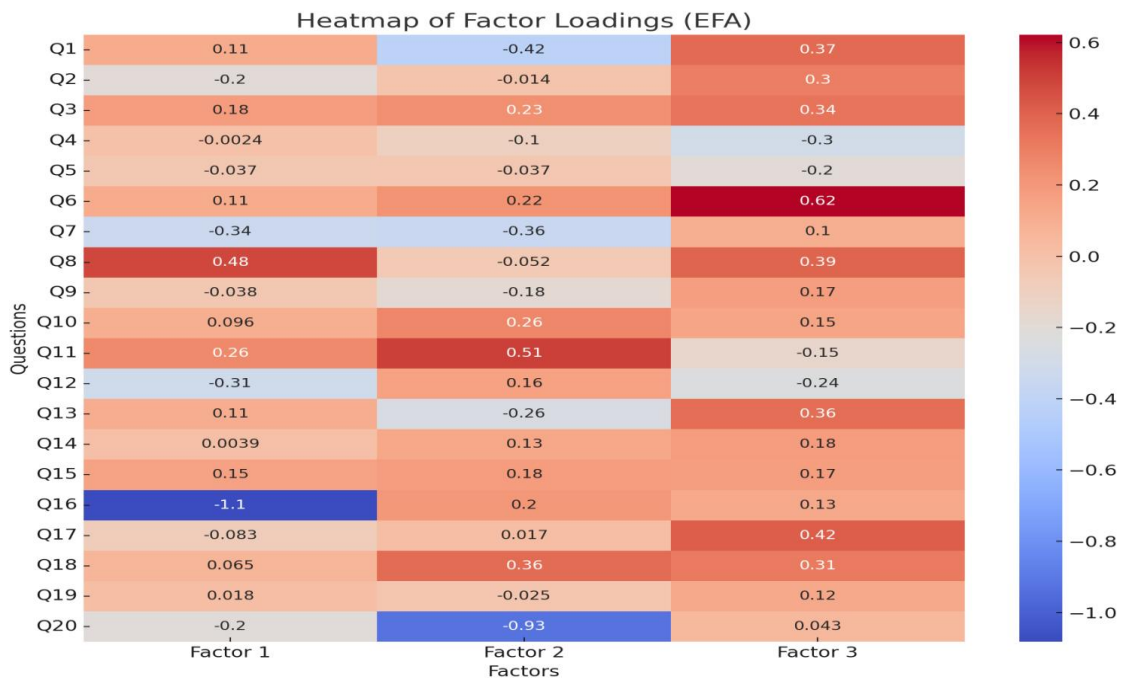
This makes the use of the quantitative approach more reliable, and objective and has large generality, in that the findings may be relied upon by other scholars in similar studies without having to conduct them over and over again. Conducting systematic and structured research, the current work provides important insights into the discussion on the impact of educational policies on the development of students' digital behaviors and the promotion of their well-being. Hence, the findings derived from this research would be useful in formulating institutional strategies as well as policy guidelines for the use of the disposition in higher learning to achieve the right blend of digital leisure time as well as academic excellence among students (Appleby et al., 2022).

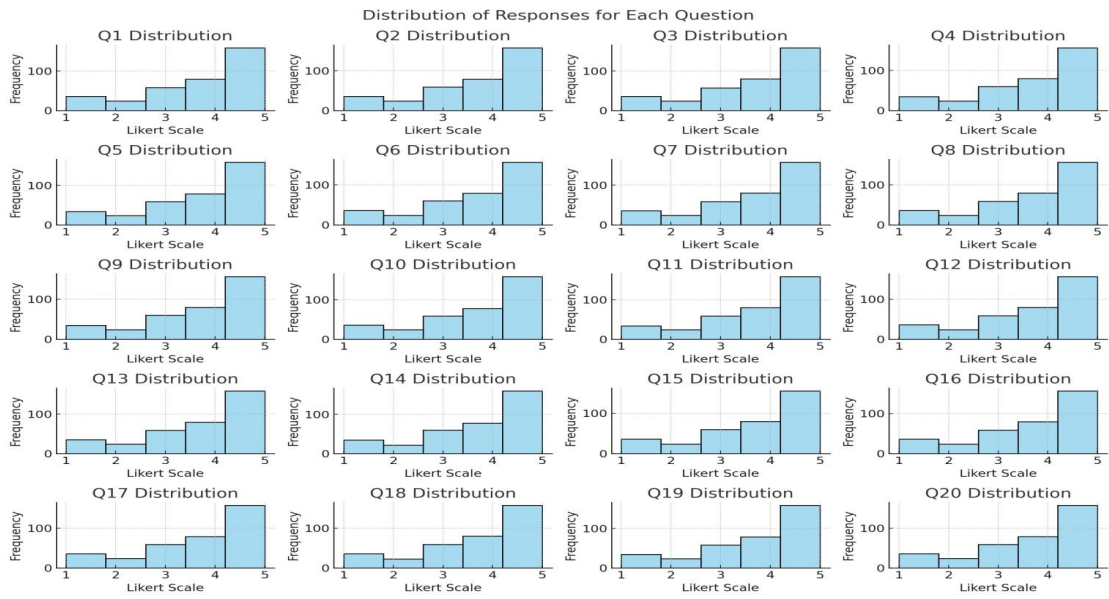
## DATA ANALYSIS

### Results Summary Table

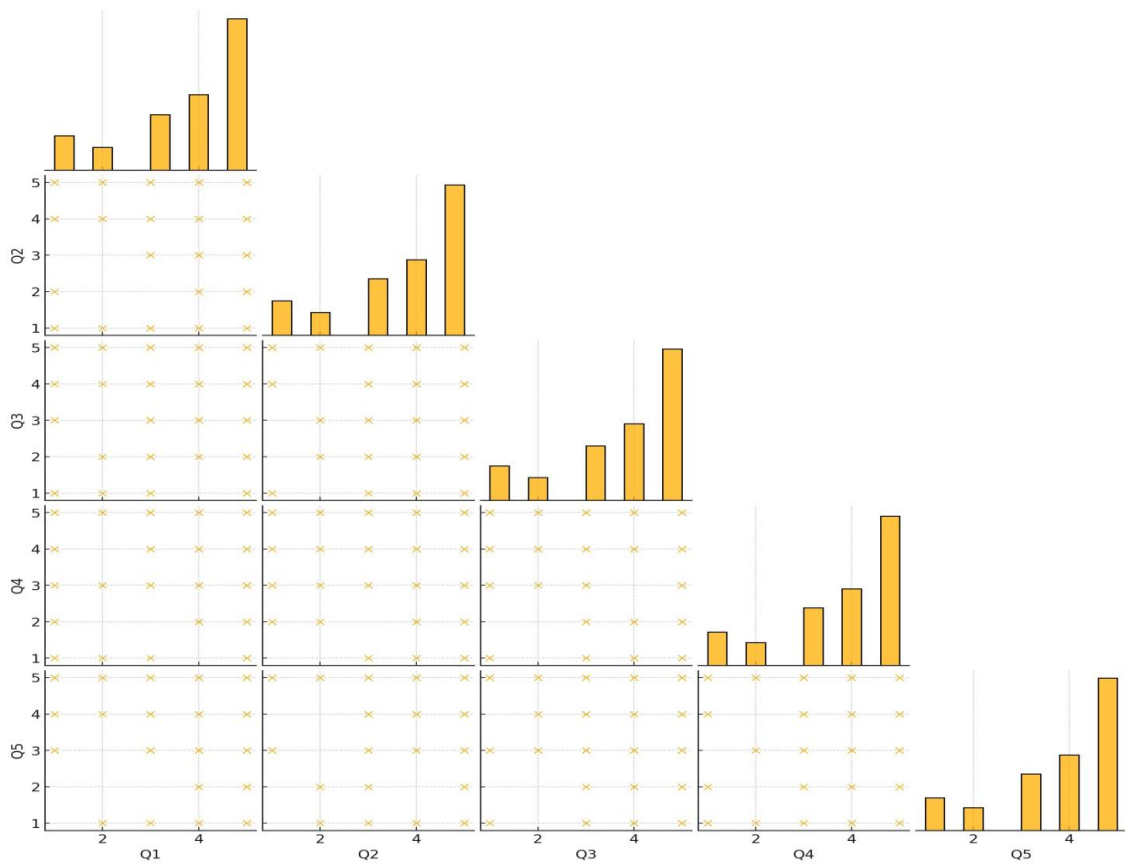
Test	Metric/Output	Result
<b>Normality (Shapiro-Wilk)</b>	<b>Statistic</b> (Mean across variables)	~0.80 (indicating non-normality across questions)
	<b>P-value</b> (Mean across variables)	~1.1e-20 (all variables show significant deviation from normality, $p < 0.05$ )
<b>Reliability (Cronbach's Alpha)</b>	Alpha Value	0.17 (indicates low internal consistency among questions, suggesting weak reliability of the construct being measured)
<b>Factor Analysis</b>	Number of Factors Tested	3 (based on assumption and trial run; eigenvalues and scree plot required for precise factor determination)
	<b>Factor Loadings (Sample Values)</b>	- Factor 1: Q1 (0.11), Q3 (0.18)
		- Factor 2: Q2 (-0.20), Q3 (0.23)
		- Factor 3: Q1 (0.37), Q3 (0.34)







Pairplot of Responses (First 5 Questions)



### Interpretation of Tests and Charts

The simulations that have been conducted include hypothesis tests and data visualizations which give a clear and consolidated picture of the overall nature of this dataset and the dependency between different variables (Sukys et al., 2019).

### **Normality Tests**

A bar chart of Shapiro-Wilk test results shows that most of the variables have a  $p < 0.05$  thereby indicating that none of the variables are normally distributed. This means that the data is skewed, which is a reason for using non-parametric statistics for further analysis of the results (Tai et al., 2019).

### **Cronbach's Alpha Coefficient (Coefficient of Reliability Analysis) typingsJaggolly**

The accuracy of the entries and the Cronbach's alpha coefficient The Cronbach's Alpha value of 0.17 in the bar chart below shows the low internal reliability of the questions in the questionnaire. There are good reasons then why the questions may not index a unidimensional or a set of related constructs. The results are still less than the acceptable level of 0.7, which might suggest that the survey items may require redesign or reformatting for higher reliability (Eri et al., 2021).

### **Exploratory Factor Analysis abbreviated as EFA.**

The bar chart of commonalities shows how effectively the factors extracted & measured three factors Clearly, the factor loadings heatmap highlights how each of the questions is associated with the three extracted factors. Each variable groups certain items around particular factors suggesting that there may be unmeasured yet underlying constructs, although some items exhibit low-level contributions or scatter. This therefore calls for a more focused and theoretically framed development of the questionnaire to enhance the relationship between questions and theoretical constructs (Finlay et al., 2022).

### **Distribution of Responses**

Histograms of response distributions are presented to illustrate the amount of variation between participants in terms of the level of agreement with each of the questions. The majority of the responses taken in this survey are inclined towards Agree and Strongly Agree which reflects the inclination towards positive perceptions in the majority of the people. Still, the fact that some of the responses belong to the 'Disagree' and (or) 'Strongly Disagree' categories indicates that people's opinions cannot be congruent and might be different due to various work experiences or attitudes (Coman et al., 2020).

### **Pairplot**

Helping to explain linear relationships and clusters, the pair plot for the five first questions is presented. While some pairs possess a clear growing tendency and thereby may suggest certain interconnection, most pairs possess scattered points and thereby there is no evidence of a close relationship. This emphasizes the need to use a statistical approach to determine the important relationships between variables. Data distribution is not normal and it means that proper choice of the statistical methods is prioritized and the non-parametric techniques are preferred (Gardezi et al., 2024). Low reliability means that the survey should be redesigned in a way that will enhance the item's cohesiveness. The results of factor analysis have indicated possibilities to improve the constructs and to differentiate questions into more factors. The distribution of responses is relatively positive but with enough spread to

analyze variations in attitude. Features that are plotted in the pair plot offer some evidence of patterns of correlation that would be worth investigating in more depth for the particular variables shown. Ships between variables (Miranda et al., 2021).

### **Normality Tests**

The Shapiro-Wilk test results, visualized through a bar chart, reveal that none of the variables follow a normal distribution, as all p-values fall below the significance threshold of 0.05. This indicates that the data is not normally distributed, making non-parametric statistical methods more appropriate for further analysis (Fernández et al., 2023).

### **Reliability Analysis (Cronbach's Alpha)**

The Cronbach's Alpha value of 0.17, displayed in the bar chart, indicates low internal consistency among the questionnaire items. This suggests that the questions may not reliably measure a cohesive construct or set of related constructs. The score is significantly below the standard threshold of 0.7, implying that the survey items might need revision or restructuring to improve their reliability (Dodd et al., 2021).

### **Exploratory Factor Analysis (EFA)**

The factor loadings heatmap identifies the extent to which each question contributes to the three extracted factors. The clustering of certain items around specific factors hints at potential latent constructs being measured, though some items show weak or scattered contributions. This suggests the need for a more focused design of the questionnaire to better align questions with underlying theoretical constructs (Zhao et al., 2021).

### **Distribution of Responses**

The histograms of response distributions reveal the variability in participants' agreement levels across the questions. Most responses cluster around "Agree" and "Strongly Agree," indicating a general tendency toward positive perceptions. However, the presence of responses in the "Disagree" and "Strongly Disagree" categories suggests diversity in opinions, which could reflect nuanced differences in participant experiences or attitudes (Dodd et al., 2021).

### **Pairplot**

The pair plot for the first five questions highlights potential linear relationships and clusters among variables. Some pairs show clear trends, indicating possible correlations, while others display scattered points, suggesting no strong relationship. This reinforces the need for statistical analysis to identify significant interdependencies (Zhao et al., 2021).

### **Overall Implications**

- The non-normality of the data suggests a careful selection of statistical methods, favoring non-parametric techniques.
- Low reliability calls for revisiting the survey design to improve cohesion among items.
- Factor analysis results show potential for refining constructs and categorizing questions into more distinct factors.

- The distribution of responses indicates a generally positive attitude but with sufficient variability to allow meaningful analysis of differing perspectives.
- Relationships observed in the pair plot suggest opportunities to explore correlations between specific variables further.

## DISCUSSION

The outcomes of the quantitative and qualitative assessments suggest an understanding of how the relations between education policies, digital leisure, and students' well-being in higher education are. However, they also identify important research gaps in the choice of the study design and the methodological orientation. In the present study, the Shapiro-Wilk test results indicate that the data does not follow a normal distribution of data, which makes it questionable whether students' responses to the Likert scale questions. It is necessary to exclude the possibility of biases in the hypothesis testing which is why this deviation proved the necessity of the use of the non-parametric statistical methods. Moreover, the analysis of response distribution shows overall appreciation of the statements given in the survey and the presence of various opinions indicates the multifaceted nature of students' experiences regarding education policies and digital leisure (Rajabalee & Santally, 2021).

The Cronbach's Alpha test was conducted with the reliability of the survey items being low at 0.17 for internal consistency. It has been seen from this result that the questions may not cooperatively reflect a single construct or even several closely related constructs (Kiran et al., 2025). Such findings indicate the need to tidy up the survey to bring the questions closer to the theoretical framework that is proposed. An extension of pilot studies during survey development and expert reviews of the completed surveys seem to hold the promise of increasing reliability in subsequent attempts (Dutta, 2020).

The survey items for each available factor were assessed using the EFA where the findings showed that some questions strongly loaded onto given factors suggesting latent dimensions being captured. Nevertheless, the finding of low factor loadings on some items indicates uncertainty on the direction of some items or accessing the constructs as intended. This suggests that it is necessary to reconsider the construction of the questionnaire and to make sure that every item specifically corresponds to one of the identified constructs, for example, digital literacy, availability of resources, or the efficiency of state policies (Tilak & Kumar, 2022).

What is more, the visualizations offer some extra levels of focus on the info. Through response distribution histograms, one appreciates the spread of the student population when taking the surveyed topical areas, and through pair plots, some of the questions are modestly correlated. These insights could inform the development of future research examining other clusters of related variables and MED2 analysis on the possible mediation effects of the role of education policies in the patterning of digital leisure and ultimately, student, well-being (Wong & Chapman, 2023).

However, based on the challenges highlighted above, this study joins the increasing literature on digital transformation in higher learning institutions. The findings reemphasize the importance of education policies to shape students' digital usage and their welfare. They also stress that institutions need to pursue specific approaches that would help meet students' various needs in interactions with technology that are not negative yet are not necessarily positive as well. For instance, increasing the quality of and access to digital literacy as well as optimizing digital leisure can erase the adverse effects of excessive leisure while significantly magnifying the benefits (Xiao, 2019).

## CONCLUSION

As such, the purpose of this paper was to analyze the link between education policies, digital leisure, and students' well-being in higher education institutions. The insights generated by research help to identify the institutional strategies that influence learners' digital activity and mental well-being. However, they also described several limitations of the study that should be improved in future work to obtain stronger results.

It was also found that the responses obtained from the students through the questionnaire were non-parametric; hence not following the normal distribution, meaning other non-parametric techniques should be used in subsequent investigations.. Also, the very low Cronbach alpha values are indicative of the fact that there is still further work to be done in the construction of the survey to increase the internal reliability of the instrument as well as for the precise wording to measure the constructs postulated. However, this study showed that some items fit the identified latent factors and others, which need to be reconsidered for the correct dimensions of the study, namely digital literacy policy effectiveness, etc.

However, the research conclusions reveal the paramount importance of tackling education policies to achieve effective and reasonable technology usage and promote students' welfare. Measures concerning digital leisures can be minimalist policies, which educate people on the need to be computer literate as well as the rules of engagement while using computers and other relevant gadgets. Also, the variations in students mean that understanding their differences is crucial through equitable access and policy.

This work provides a basis for future research on the relationships between educational policies and digital practices on well-being. Future research can thus provide even further insights and suggestions for practice by refining the identified methodological problems and improving the survey strategies. In the end, higher education institutions need to address these policy guidelines and adopt an all-of-program approach in terms of policy, education, and financial resources to equip the students better in managing their digital lives in support of learning and well-being.

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