

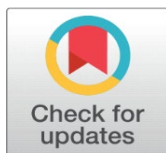
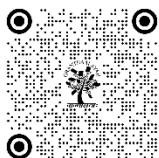


DIGITAL WELLBEING OF RESEARCH SCHOLARS: A COMPARATIVE STUDY OF CENTRAL UNIVERSITY OF SOUTH BIHAR AND MAGADH UNIVERSITY

Rupesh Kumar Pandey ¹, Dr. MD. Mozammil Hassan ²

¹Research Scholar, Department of Teacher Education, SOE Central University of South Bihar, Gaya, Bihar

²Assistant Professor, Department of Teacher Education, SOE Central University of South Bihar, Gaya, Bihar



Corresponding Author

Rupesh Kumar Pandey,
rupesh@cusb.ac.in

DOI

[10.29121/shodhkosh.v5.i5.2024.4688](https://doi.org/10.29121/shodhkosh.v5.i5.2024.4688)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



ABSTRACT

Digital Wellbeing (DW) is about crafting and maintaining a healthy relationship with technology. The widespread integration of digital technologies in education has transformed the teaching-learning landscape, offering unprecedented opportunities for accessibility, collaboration, and innovation. In this digital age, the research scholars of universities heavily depend on digital technologies for their research related activities like, accessing journals, research reports, conducting survey, data analysis, plagiarism checking, and report preparation. However, this digital dependency introduces challenges to their overall wellbeing, including mental, physical, and social aspects. This study investigates comparative analysis of the digital wellbeing of research scholars enrolled at the Central University of South Bihar (CUSB) and Magadh University (a state university of Bihar), focusing on their digital satisfaction, Safe and Responsible behaviour, and Digital Wellness. The respondents were sampled in the study to estimate the digital wellbeing of the research scholars enrolled in the different disciplines of both the universities. This study was based on the quantitative research approach using a standardised Digital Wellbeing Scale as Google form. The digital wellbeing of the research scholars of Central University of South Bihar and Magadh University were also compared considering their background variables. The findings of the study provide an insight towards digital wellbeing of research scholars of both the universities.

Keywords: Wellbeing, Digital Wellbeing, Digital Satisfaction, Digital Wellness

1. INTRODUCTION

Wellbeing refers to a person's overall health, happiness, and fulfilment, encompassing physical, emotional, social, and intellectual dimensions. Wellbeing is a condition in which an individual has positive feelings, such as happiness and satisfaction (Twenge, 2019). It involves a sense of balance and satisfaction in one's life and can be influenced by various factors, such as genetics, environment, lifestyle, and personal choices. Wellbeing refers to a holistic view of living a life that is physically and emotionally healthy. For example, wellbeing can include social, emotional, self-confidence, self-regulation/monitoring, enjoyment, mental, and more (McCullum & Price, 2016).

Technologies are representations of our daily life to make it easier and smoother. It is tough to consider the present life without novel words like wireless, downloading, uploading, blogging, networking, cyberspace, hyperlink, cloud,

cookies, and internet in our shared knowledge. In the present era, we are experiencing the technology advance faster than ever in every field of life. The proliferation of ICT, digital tools, technology and e-learning in higher education institutions faces a dual reality. These technological advancements make the higher education more flexible in terms of access and outcomes. The collaboration of a virtual learning environment increases navigation of technological facilities, reduce face-to-face engagements and develop self-regulation. The uses of digital technology in the teaching-learning process have significantly reshaped the teaching approach, communication and professional responsibility towards teaching. The integration of digital technologies in teaching-learning and research have both positive and negative impacts on our physical, mental, social, and emotional well-being. Several studies have highlighted the positive and negative impacts of digitalisation in education. Today's Educators are expected to navigate digital platforms for teaching, lesson planning, grading, and student interaction while dealing with digital fatigue, constant notifications, and work-life balance disruptions (Mirzapour, Şengül, & Curle, 2023).

Therefore, we need to manage technological engagement to ensure meaningful teaching-learning and research outcomes in higher education.

2. CONCEPTUAL BACKGROUND OF DIGITAL WELLBEING

Wellbeing is a multidimensional concept defined by psychological, emotional, physiological, social and subjective components of well-being (Moldovan & others, 2022; Douwes & others, 2023). Due to the frequent use of technology in recent years, a new aspect of wellbeing is increasingly being analysed: digital wellbeing (Roffarello & De Russis, 2023). The Council of the European Union (2022) in its report entitled as 'Council Conclusions on Supporting Well-Being in Digital Education' define digital well-being as 'a feeling of physical, cognitive, social and emotional contentment that enables all individuals to engage positively in all digital learning environments including through digital education and training tools and methods, maximise their potential and self-realisation'.

Digital Wellbeing is a state of satisfaction people experience when digital technologies are accessed with their intentions. Digital wellbeing is the state of wellbeing that an individual experience in a setting where digital communication tools are available and their use promotes comfort, safety, and satisfaction (Abeele, 2021). In conceptualising digital wellbeing, several other aspects need to be taken into account: digital wellbeing is more than the absence of a pathology characterised by harmful habits of technology use, a digital media addiction; a person's relationship with technology can be positive through hedonic and eudemonic experiences; digital wellbeing is temporally variable and depends on each individual; digital wellbeing is a dualistic phenomenon, whereby the benefits of technology may be lost by limiting the harmful effects of technology. (Vanden Abeele, 2021). Gomes et al. (2023) developed a digital wellbeing scale. They noted three aspects of digital wellbeing: (1) digital mental wellbeing, (2) digital emotional wellbeing, and (3) digital physical wellbeing.

Digital wellness is a significant value that enables a person to be more engaged and productive and lead healthier lives during and outside of work. Adopting digital wellness practices would allow individuals to be more attentive to their work and cause less harm and distractions. It specifies a person's health and happiness in the context of their use of digital technology. It involves understanding how digital technology can affect a person's physical, mental, social, and emotional health and wellbeing and optimising their relationship with digital technology. It encompasses a range of practices and awareness to promote a healthy use of technology while reducing dependency and minimising the adverse effects of technology on our daily lives. This can include managing screen time, taking digital breaks, and using digital devices to support rather than detract from personal well-being.

3. LITERATURE REVIEW

Digital wellbeing is a recent phenomenon that got attention of both academic and job worlds. The researches on this issue is done at international level but with limited scope. The few research are summaries as follows:

Rehman (2023) conducted a study to assess the effects of excessive screen time during online teaching on medical students' physical and mental health. The consequences show a significant correlation between the increased duration of online classes, increased eye strain, and restlessness. The increased activity of non-academic screen time also affects the challenge of physical fitness.

Almoallim & Sas (2022) conducted a review-based study on digital wellbeing apps towards research design implications for interventions limiting smartphone use. The researcher selected 39 commercial and 17 academic digital wellbeing apps and reviewed 17 research papers describing academic apps. The sets of digital wellbeing apps were analyzed by examining their functionalities based on their descriptions. The study's findings indicate that these apps focus primarily on limiting screen time and advance a richer conversation about such apps, articulating the distinction between monitoring use and tracking use against the set limits.

Cao and Li (2022) conducted a review based study on digital wellbeing on the early childhood. The study highlights the major issues regarding the more vulnerable uses of technologies and addiction. The study concluded with Children who are vulnerable offline are more likely to be vulnerable in the digital environment. It is inferred that digital use differs according to parents' demographic characteristics, income, educational level, parental digital usage, perception, mediation of young children's digital use, and so on. It is found that parental engagement positively predicted children's social competence, whereas children's screen time negatively predicted their social competence.

Fang, Farhan, Naveed, Rida and Yingyu (2022) completed a study on the impact of perceived skillset and organizational traits on digital wellbeing of teachers with the mediating role of three levels of resilience. The findings show that perceived skillsets positively and significantly impacted digital wellbeing, and organisational traits had an insignificant effect. The results indicate that organisational and employee resilience positively mediate the relationship between perceived skillset and organisational characteristics on digital wellbeing. Similarly, findings illustrate that team resilience positively mediates the relationship between perceived skillset and digital wellbeing. Furthermore, results show that team resilience negatively and insignificantly mediates the relationship between organisational traits and digital wellbeing.

Don (2021) studied digital technologies and teacher wellbeing concerned with developing digital wellbeing and using technologies to support teaching practices. The findings of the study identified as having a negative influence on teachers and their wellbeing. The study also highlights that digital wellbeing is one of the most influential categories among digital literacy, digital wellbeing and physical, social and psychological wellbeing.

Vanden & Mariek (2021) completed a study on digital wellbeing as a dynamic construct that explains the lack of balance experienced in digital technology connectivity. The study highlighted that we hardly disconnect from technology; smartphones are tapped and swiped close to three hours per day and clicked 2600 times per day, and people spend close to three hours per day on their little screens.

Romero, Shaughnessy, Otto, Taylor, & Watson (2020) conducted a study on digital practices and applications in a Covid-19 culture of teaching-learning. The study investigates the innovative digital teaching-learning practices of pre-teacher education students in university instructors. The phenomenon has caused a heightened awareness of different technologies and teaching methods that can be used to engage learners. The study expressed that the instructors and learners must be prepared for various major disruptions and to be able to utilise and even reinvent their ways of teaching-learning.

Themelis (2019) surveyed practices and highlighted 14 examples of digital well-being practices in the UK, Ireland, Spain, and Denmark. The study's findings reported no evidence of distraction that is affected by screen time in young people. It emphasises the need for digital citizens in a digital society to be aware of laws, threats of personal data, manipulation tactics, and digital experiences that harm others when they do not behave ethically.

4. NEED AND SIGNIFICANCE OF THE STUDY

The wellbeing of individual and of society as a whole, depends on their usage of digital media and technology. Since everyone uses digital media and technologies, it is imperative to investigate the states of digital wellbeing in order to enhance the quality of life (Arslankara et al., 2022). This study assesses balance between digital engagement and its impact on wellbeing of research scholars due to their academic endeavour using digital technologies. This study was conducted to measure the three critical factors of the research scholars regarding digital well-being: digital satisfaction, safe and responsible behaviour, and digital wellness. The researcher followed a comparative approach for this study to assess the level of digital well-being among the research scholars from the Central University of South Bihar (CUSB) and Magadh University (MU). The study can provide insights into the impact of digital technologies on the wellbeing of research scholars of the Central University of South Bihar and Magadh University.

This study may play a substantive role in understanding the current state of digital wellbeing of research scholars enrolled at the Central University of South Bihar and Magadh University concerning their gender, research discipline and research status. The study will also helpful in determining the factors that affect the digital well-being of the research scholars. This study will serve as a source of evidence for the stakeholders, policy-makers and researchers towards the digital wellbeing of research scholars in Indian context.

5. STATEMENT OF THE PROBLEM

The study aims to discover a comparative account of digital wellbeing of research scholars enrolled of Central University of South Bihar and Magadh University in terms of digital satisfaction, safe & responsible behaviour and digital wellness. The study also evaluate gender, research discipline and research status as the determining factors of digital wellbeing of research scholars of the two universities. Hence, this study is entitled as - **Digital Wellbeing of Research Scholars: A Comparative Study of Central University of South Bihar and Magadh University.**

6. OBJECTIVES OF THE STUDY

- 1) To compare the digital wellbeing of research scholars of Central University of South Bihar and Magadh University.
- 2) To study the digital wellbeing of research scholars of Central University of South Bihar and Magadh University with respect to their gender.
- 3) To study the digital wellbeing of research scholars of Central University of South Bihar and Magadh University with respect to their research disciplines.
- 4) To study the digital wellbeing of research scholars of the Central University of South Bihar and Magadh University with respect to their research status.

7. RESEARCH HYPOTHESES

Ho1 There is no significant difference in digital wellbeing of research scholars of Central University of South Bihar and Magadh University.

Ho2 There is no significant difference in digital wellbeing of research scholars of Central University of South Bihar with respect to their gender.

Ho3 There is no significant difference in digital wellbeing of research scholars of Magadh University with respect to their gender.

Ho4 There is no significant difference in digital wellbeing of research scholars of Central University of South Bihar with respect to their research disciplines.

Ho5 There is no significant difference in digital wellbeing of research scholars of Magadh University with respect to their research disciplines.

Ho6 There is no significant difference in digital wellbeing of research scholars of Central University of South Bihar with respect to their research status.

Ho7 There is no significant difference in digital wellbeing of research scholars of Magadh University with respect to their research status.

8. OPERATIONAL DEFINITIONS

- **Digital Wellbeing:** It refers to the overall state of an individual's digital satisfaction, safe and responsible behaviour, and digital wellness in relation to their use of digital technologies. The score obtained on digital wellbeing tool used for the measurement will represent the digital wellbeing of the research scholar.
- **Gender:** It refers to the biological sex identification of the research scholars, which are Male and Female.
- **Research Discipline:** It refers to the disciplines of study of the research scholars enrolled at the Central University of South Bihar and Magadh University. These participants were categorised into three disciplines. It includes three categories of disciplines - Teacher Education, Arts and Science

- **Research Status:** It refers to the status of the Ph.D. work of the research scholars relates to their research progress. It comprises of four different phases of Ph.D. which are Research Proposal phase, Tool Preparation phase, Data Collection phase, and Thesis Writing phase.

9. METHODOLOGY OF THE STUDY

Research Method

The researcher followed the quantitative approach to assess the of digital wellbeing of research scholars of the Central University of South Bihar and Magadh University and Magadh University. This study followed the descriptive survey method to execute a comparative analysis of the digital wellbeing of research scholars of these two institutions.

Participants

The population of this study comprises all the research scholars enrolled in the Ph.D. programme at Central University of South Bihar and Magadh University situated in Gaya, Bihar. The participants were invited to join the survey through online social platforms using Google form of the tool. The total participants were 200 research scholars, whereas 100 were from the Central University of South Bihar, and another 100 were from Magadh University.

Descriptions of Research Tool

This study utilised a standardised Digital Wellbeing Scale developed by Arslankara, Demir, Oztas, and Usta (2022). This scale has three dimensions of digital wellbeing, which are Digital Satisfaction; Safe and Responsible Behaviour; and Digital Wellness. This is a 5-point Likert scale having 12 items, contains 10 positive and 2 negative items. The positive items were scored as **5** for *Fully reflective*, **4** for *Very reflective*, **3** for *Moderately reflective*, **2** for *Less reflective* and **1** for *Doesn't Reflect at all*. The negative items were scored oppositely. The reliability results of the scale were determined using Spearman-Brown method (0.728), Guttman Split-Half method (0.751) and Cronbach's Alpha method (0.791). The levels for the digital wellbeing in this scale are Low Level (Score range: 12-24), Moderate Level (Score range: 25-36), Good Level (Score range: 37-48), Very Good Level (Score range: 49-60). The tool was administered as Google form.

Background Variables

This study has considered three background variables: (i) Gender (Male/ Female), (ii) Research Discipline (Teacher Education/ Science/ Arts), and (iii) Research Status (Research Proposal phase/ Tool Preparation phase/ Data Collection phase/ and Thesis Writing phase)

10. DATA ANALYSIS AND INTERPRETATION

This study analysed the digital wellbeing score collected from research scholars at the Central University of South Bihar and Magadh University. The data were subjected to both the descriptive analysis as well as inferential analysis. The inferential analysis is done using t-test and one-way ANOVA to assess the significant differences among the study variables. The analysis aims to determine the significant differences in digital wellbeing of research scholars based on the Universities, Gender, Research discipline of the Study, Research status.

1) Descriptive Analysis

Table-1 Overall Descriptive Statistics of Digital Wellbeing (DW) of research Scholars

S.N.	Demographic Variables		Size (N)	Mean (M)	SD
1.	Institution	CUSB	100	44.37	4.559
		MU	100	43.86	5.507
2.	Gender	Male	121	44.43	5.442
		Female	79	43.63	4.368
3.	Research Discipline	Teacher Education	36	43.75	5.749
		Arts	115	44.72	4.264
		Science	49	42.96	6.003

4.	Research Status	Research Proposal Phase	64	43.91	5.748
		Tool Preparation Phase	43	43.86	4.178
		Data Collection Phase	47	44.83	5.151
		Thesis Writing Phase	46	43.91	4.727
4.	Digital Wellbeing Levels	Moderate Level	8	30.38	5.579
		Good Level	155	43.24	3.096
		Very Good Level	37	50.76	1.801

The descriptive statistics reflects that digital wellbeing of research scholars from the CUSB have a slightly higher mean value (44.37) than research scholars from MU (43.86). In contrast, MU has a higher standard deviation (5.507), indicating more variability in the digital wellbeing scores of the participants. The data on gender wise description, the male scholars ($M = 44.43$) have slightly higher digital wellbeing than female scholars ($M = 43.63$). The standard deviation (SD) is higher for males (5.442) than for females (4.368), suggesting that male scholars' scores are more widely spread than the female scholars' scores. Similarly, the research scholars of Arts discipline have the highest mean score (44.72), followed by the scholars of Teacher Education (43.75), and the lowest mean score in Science discipline (42.96). However, Science scholars have the highest SD (6.003), indicating more diverse digital wellbeing experiences. Here, the data analysed based on research status concerning digital wellbeing Data Collection phase has the highest DW mean score (44.83), suggesting better digital wellbeing at this stage.

In contrast, the Tool Preparation phase has the lowest mean DW score (43.86), indicating scholars in this stage might face more digital challenges. Now, the Variability is highest during Research Proposal Phase ($SD = 5.748$), suggesting different levels of digital adaptation among scholars at this stage. Here, the analysis of digital wellbeing level Very Good Level has the highest mean score (50.76) with the lowest SD (1.801), indicating a stable and high level of digital wellbeing. Those with a Good Level have a mean of 43.24 with moderate variability ($SD = 3.096$). Scholars with a Medium Level of digital wellbeing have the lowest mean (30.38) and the highest variability ($SD = 5.579$), suggesting a greater struggle with digital wellbeing in this category.

Table-2 Institution wise comparison between CUSB and MU

Institution	N	Range	Mean	SD	Skewness	Kurtosis
CUSB	100	29	44.37	4.559	-1.002	3.669
MU	100	35	43.86	5.507	-0.911	2.603

This table presents a descriptive analysis of digital wellbeing scores across two institutions- **CUSB and MU**. Key statistical measures such as **range, mean, standard deviation (SD), skewness, and kurtosis** are analyzed to understand the distribution and variability of scores. The range score of CUSB (29) is lesser than that of MU (35). It suggests that MU has a **wider spread** of scores, indicating more dispersion in digital wellbeing of research scholars. The mean score for research scholars of CUSB (44.37) is **slightly higher** than MU (43.86), though the difference is small. The SD value of CUSB and MU indicates that digital wellbeing of research scholars from CUSB **are more consistent**, while **MU shows greater dispersion**. The values of Skewness are negative for both the universities suggest that the distribution of score is negatively skewed and are moderately clustered towards the left end. Kurtosis value of CUSB is slightly higher than MU which indicates that score distribution of **CUSB** scholars has a more **peaked shape** than scores of **MU** scholars.

2) Inferential Analysis

• Overall Comparison between CUSB and MU

H₀₁ There is no significant difference in digital wellbeing of research scholars of Central University of South Bihar and Magadh University.

Table-3 t-test for the comparison of digital wellbeing scores between CUSB & MU

Institution	N	Mean	S.D.	df	t-Value	p-Value	Result
CUSB	100	44.37	4.559	198	0.713	0.476*	Not Significant
MU	100	43.86	5.507				

*** $p > 0.05$, Not Significant at 0.05 level**

The table-3 presents the results of an **independent samples t-test** for comparing the **digital wellbeing scores** of research scholars from **CUSB and MU**. The data shows that $p > 0.05$, which means that **there is no significant difference in digital wellbeing of the research scholars of CUSB and MU**.

- Gender wise Comparison between CUSB and MU**

H₀₂ There is no significant difference in digital wellbeing of research scholars of CUSB with respect to their gender.

Table-4 t-test for Gender wise analysis of digital wellbeing Score for CUSB

Variable	N	Mean	SD	df	t-value	p-value	Result
Male	57	44.96	4.866	98	1.512	0.134*	Not Significant
female	43	43.58	4.037				

*** $P > 0.05$, Not Significant at 0.05 level**

This table presents the results of an **independent samples t-test** to compare the digital well-being scores of male and female research scholars of CUSB. Here, the **t-value** for the test is **1.512**, and the **p-value** was **0.134**, which is greater than 0.05 level of significance. Hence, there is no significance difference between males and females research scholars in digital wellbeing of CUSB.

H₀₃ There is no significant difference in digital wellbeing of research scholars of Magadh University with respect to their gender.

Table-5 t-test for Gender of participants' Digital Wellbeing score from Magadh University

Variable	N	Mean	SD	df	t-value	p-value	Result
Male	64	43.95	5.905	98	0.224	0.823	Not Significant
female	36	43.69	4.792				

*** $P > 0.05$, Not Significant at 0.05 level**

This table presents the results of an **independent samples t-test** to compare the digital wellbeing scores between male and female participants from MU. The t-value from the test was 0.224, and the p-value was 0.823, which is much greater at a 0.05 significance level. This means there is **no significant difference** in digital wellbeing scores between male and female participants at MU. One can also conclude that the null hypothesis states that there is no significant difference between males and females concerning digital wellbeing scores from the participants of MU.

11. CONCLUSION

The analysis of digital wellbeing of research scholar with respect to their gender indicate that no significant differences on the basis of gender found in case of both the universities. it can be inferred that gender does not play a crucial role in determining digital well-being of research scholar in these institutions.

- Discipline wise Comparison between CUSB and MU**

H₀₄ There is no significant difference in digital wellbeing of research scholars of Central University of South Bihar with respect to their research discipline.

Table-6: F-test for Research Discipline wise comparison among CUSB Scholars

Variance	Sun of Squares	df	Mean of Square	F-Value	p-Value	Result
Between Groups	20.400	2	10.200	0.486	0.617*	Not Significant
Within Groups	2036.910	97	20.999			
Total	2057.310	99				

***P>0.05, Not Significant at 0.05 level**

From the table the calculated F-value is 0.486, and the p-value is 0.617. The p-value is greater than the significance level (0.05), which indicates that the differences among the disciplines are not statistically significant. This suggests that the research discipline does not significant impact on digital well-being of research scholars.

H₀₅ There is no significant difference in digital wellbeing of research scholars of Magadh University with respect to their research discipline.

Table-7 F-test for Research Discipline wise comparison among MU Scholars

Variance	Sum of Squares	df	Mean of Square	F-value	p-Value	Result
Between Groups	410.551	2	205.275	7.684	0.001*	Significant
Within Groups	2591.489	97	26.716			
Total	3002.040	99				

***P<0.05, Significant at 0.05 level**

From the table value it can be inferred that the calculated F-value is 7.684, and the p-value is 0.001 which is less than the significance level (0.05). The result indicates a statistically significant difference in digital wellbeing of research scholars of different disciplines of MU. Hence, further post-hoc tests (Tukey's HSD) is applied to identify which specific disciplines differ significantly from each other.

Table-8 Post-hoc Analysis for Research Discipline Wise Comparison (Tukey HSD)

Discipline (I)	Discipline (J)	Mean Differences (I-J)	Std. Error	Significance (P-Value)
Teacher Education	Science & Technology	1.825	2.243	0.696
	Arts	-2.984	2.048	0.316
Science	Teacher Education	-1.825	2.243	0.696
	Arts	-4.809*	1.261	0.001
Arts	Teacher Education	2.984	2.048	0.316
	Science	4.809*	1.261	0.001

*** The mean difference is significant at the 0.05 level**

Here it can be inferred that digital wellbeing scores of **research scholars** vary significantly between Science and Arts disciplines. Arts **scholars** have significantly lower digital wellbeing scores compared to Science Scholar. This suggests that **Science scholars may have better digital wellbeing compared to Arts scholars**, while Teacher Education Scholar fall somewhere in between without significant variations.

12. CONCLUSION

As per the comparison among the **research scholars** of different disciplines from CUSB and MU, it can be inferred that research discipline is not a significant determinant of **digital wellbeing** in case of CUSB. Whereas **in case of MU**, research discipline is a **statistically significant determinant of digital wellbeing**. The analysis suggests that academic disciplines at **Magadh University have a significant impact on digital wellbeing of research scholars**.

H₀₆ There is no significant difference in digital wellbeing of research scholars of Central University of South Bihar with respect to their research status.

Table-9 F-test for Digital Wellbeing Score based on Research Status for CUSB

Variance	Sum of Squares	df	Mean Square	F-Value	p-Value	Result
Between Groups	100.511	3	33.504	1.644	0.184*	Not Significant
Within Groups	1956.799	96	20.383			
Total	2057.310	99				

***P<0.05, Significant at 0.05 level**

From the table the calculated F-value is 1.644 and the p-Value is 0.184. The p-Value is higher than significance at 0.05 level. Hence, it can be inferred that there is no statistically significant difference in the digital wellbeing of research scholars of CUSB with respect to their research status. In other words, different research status of the research scholars does not lead to meaningful variations in their digital wellbeing.

H₀₇ There is no significant difference in digital wellbeing of research scholars of Magadh University with respect to their research status.

Table-10 F-test for Digital Wellbeing Score based on Research Status for MU

Variance	Sum of Squares	df	Mean Square	F-Value	p-Value	Result
Between Groups	37.633	3	12.544	0.406	0.749*	Not Significant
Within Groups	2964.407	96	30.879			
Total	3002.040	99				

***P<0.05, Significant at 0.05 level**

From the table the calculated F-Value is 0.406 and p-value is 0.749 which is higher than the 0.05 significance level. Hence, it can be inferred that p-value (0.749) is much greater at 0.05 level and the test fails to reject the null hypothesis. This means that there is **no statistically significant difference** in the digital well-being of research scholars with respect to their different research status at Magadh University.

13. CONCLUSION

From the above these two tables present **F-test (ANOVA) results** for digital well-being scores of research scholars from **CUSB** and **MU**, examining whether there are statistically significant differences based on research status. Neither

the institutions show a statistically significant difference in digital well-being of research scholars based on their research status. The results suggest that research status is not a determining factor for digital wellbeing of research scholars at both the universities.

14. SUMMARY OF MAJOR FINDINGS

The major findings of this study reveals that there is **no significant difference in digital wellbeing of the research scholars of Central University of South Bihar and Magadh University. As per gender wise analysis of digital wellbeing score of CUSB and MU research scholars, it is found that gender is not a discriminating factor in both the universities.** Moreover, the research discipline is not a significant determinant of digital wellbeing in case of CUSB. Whereas **in case of MU**, the research discipline is a **significant determinant of digital wellbeing of research scholars.** In case of CUSB and MU both, the research status is also not a **significant determinant of digital wellbeing of research scholars.**

15. RECOMMENDATION FOR FURTHER STUDIES

Further research can be conducted considering of background variables like academic workload, technology proficiency, offline and online screen time, availability of gadgets, scholarship status and marital status for assessing the digital wellbeing of research scholars. Also, it can be investigated with the comparative and large sample size while including Undergraduate and Postgraduate students from various institutions and disciplines. As this study is conducted only for research scholars, but further the target groups may be included such as teachers, teacher educators and institutional staffs.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

- Adomaitiene, K., & Volungeviciene, A. (2022). Digital Wellbeing: Students' perspective. *Ubiquity Proceedings*, 33. <https://doi.org/10.5334/uproc.155>
- Almoallim, S., & Sas, C. (2022). Toward Research-Informed Design Implications for Interventions Limiting Smartphone Use: Functionalities Review of Digital Well-being apps. *JMIR Formative Research*, 6(4), e31730. <https://doi.org/10.2196/31730>
- Arslankara, V. B., Demir, A., Oztas, O., & Usta, E. (2022). Digital Well-Being Scale Validity and Reliability Study. *Journal of Teacher Education and Lifelong Learning*, 4(2), 263–274. <https://doi.org/10.51535/tell.1206193>
- Cao, S., & Li, H. (2023a). A scoping review of digital well-being in early childhood: Definitions, measurements, contributors, and Interventions. *International Journal of Environmental Research and Public Health*, 20(4), 3510. <https://doi.org/10.3390/ijerph20043510>
- Cao, S., & Li, H. (2023b). A scoping review of digital well-being in early childhood: Definitions, measurements, contributors, and Interventions. *International Journal of Environmental Research and Public Health*, 20(4), 3510. <https://doi.org/10.3390/ijerph20043510>
- Dwivedi, et al. (2023). Exploring the darkness: A Multi-Perspective analysis of the negative societal impacts of the Metaverse. *Information Systems Frontiers*, 25(5), 2071–2114. <https://doi.org/10.1007/s10796-023-10400-x>
- Filep, S., Kondja, A., Wong, C. C. K., Weber, K., Moyle, B. D., & Skavronskaya, L. (2023). The role of technology in users' wellbeing: Conceptualizing digital wellbeing in hospitality and future research directions. *Journal of Hospitality Marketing & Management*, 33(5), 583–601. <https://doi.org/10.1080/19368623.2023.2290626>
- Markauskaite, L., Marrone, R., Poquet, O., Knight, S., Martinez-Maldonado, R., Howard, S., Tondeur, J., De Laat, M., Shum, S. B., Gašević, D., & Siemens, G. (2022). Rethinking the entwinement between artificial intelligence and human

- learning: What capabilities do learners need for a world with AI? *Computers and Education Artificial Intelligence*, 3, 100056. <https://doi.org/10.1016/j.caeai.2022.100056>
- Moldavan, A. M., Edwards-Leis, C., & Murray, J. (2022). Design and pedagogical implications of a digital learning platform to promote well-being in teacher education. *Teaching and Teacher Education*, 115, 103732. <https://doi.org/10.1016/j.tate.2022.103732>
- Monge Roffarello, A., & De Russis, L. (2023, September). Nudging users or redesigning interfaces? Evaluating novel strategies for digital wellbeing through incontroll. In *Proceedings of the 2023 ACM Conference on Information Technology for Social Good* (pp. 100-109).
- Mathew, J., Nair, S., Gomes, R., Mulasi, A., & Yadav, P. (2023). Design and validation of the digital well-being scale. *Ricerche Di Pedagogia e Didattica. Journal of Theories and Research in Education*, 18(1), 239-251.
- Myers, J. E., Sweeney, T. J., & Witmer, J. M. (2000). The Wheel of Wellness Counseling for Wellness: A Holistic Model for Treatment Planning. *Journal of Counseling & Development*, 78(3), 251-266. <https://doi.org/10.1002/j.1556-6676.2000.tb01906.x>
- Passey, D. (2021). Digital Technologies—And teacher wellbeing?. *Education Sciences*, 11(3), 117. <https://doi.org/10.3390/educsci11030117>
- Rathakrishnan, B., Singh, S. S. B., Kamaluddin, M. R., Yahaya, A., Nasir, M. M., Ibrahim, F., & Rahman, Z. A. (2021). Smartphone addiction and sleep quality on academic performance of university students: Exploratory research. *International Journal of Environmental Research and Public Health*, 18(16), 8291. <https://doi.org/10.3390/ijerph18168291>
- Romero-Ivanova, C., Shaughnessy, M., Otto, L., Taylor, E., & Watson, E. (n.d.). Digital Practices & Applications in a COVID-19 Culture. <https://eric.ed.gov/?id=EJ1264741>
- Royo, C., Sime, J., Themelis, C., & Sicili, M. A. (2019). Digital wellbeing educators – A compendium of best practices. *Eucen Studies eJournal of University Lifelong Learning*, 3(1), 13–18. <https://doi.org/10.53807/03017h5p>
- Seeber, I., Bittner, E., Briggs, R. O., De Vreede, T., De Vreede, G., Elkins, A., Maier, R., Merz, A. B., Oeste-Reiß, S., Randrup, N., Schwabe, G., & Söllner, M. (2019). Machines as teammates: A research agenda on AI in team collaboration. *Information & Management*, 57(2), 103174. <https://doi.org/10.1016/j.im.2019.103174>
- Shu, K. (2022). Teachers' commitment and self-efficacy as predictors of work engagement and well-Being. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.850204>
- Twenge, J. M. (2019). More time on technology, Less happiness? Associations between digital-media use and psychological well-being. *Current Directions in Psychological Science*, 28(4), 372–379. <https://doi.org/10.1177/0963721419838244>
- Vanden Abeele, M. M. P. (2020a). Digital wellbeing as a dynamic construct. *Communication Theory*, 31(4), 932–955. <https://doi.org/10.1093/ct/qtaa024>
- Vanden Abeele, M. M. P. (2020b). Digital Wellbeing as a dynamic construct. *Communication Theory*, 31(4), 932–955. <https://doi.org/10.1093/ct/qtaa024>
- Vanden Abeele, M. M. P. (2020c). Digital Wellbeing as a dynamic construct. *Communication Theory*, 31(4), 932–955. <https://doi.org/10.1093/ct/qtaa024>
- Yu, F., Mirza, F., Chaudhary, N. I., Arshad, R., & Wu, Y. (2022a). Impact of perceived skillset and organizational traits on digital wellbeing of teachers: Mediating role of resilience. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.923386>
- Yu, F., Mirza, F., Chaudhary, N. I., Arshad, R., & Wu, Y. (2022b). Impact of perceived skillset and organizational traits on digital wellbeing of teachers: Mediating role of resilience. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.923386>
- Zhu, Z. (2023). Digital wellbeing in gaming: An examination through technological and social contextual lenses . *Doctoral dissertation, National University of Singapore, Singapore*