

# Mindfulness among University Students and its Relation to Digital Citizenship

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## Mindfulness among University Students and its Relation to Digital Citizenship

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### **Abstract:**

This study aimed to identify the adequacy of mindfulness among university students, and its relationship to digital citizenship. To achieve that goal, the researcher used the descriptive, correlational, comparative approach. The study sample consisted of (313) male and female students of the theoretical and practical colleges at the university from the first and fourth year, and a scale was used. mindfulness and a measure of practicing digital citizenship behavior prepared by the researcher, and using correlation coefficients and a t-test for independent samples, the results concluded that there is a positive, statistically significant correlation between the dimensions of mindfulness and the total grade, and the dimensions of digital citizenship and the total grade. There are no statistically significant differences between male and female students in mindfulness, while there are differences between them in digital citizenship in favor of girls, there are differences between students of practical colleges and students of theoretical colleges in mindfulness in favor of practical colleges, while there are no differences between them in digital citizenship, and there are statistically significant differences between first-year students and fourth-year students in each. of mindfulness and digital citizenship, in favor of fourth year students. The study recommended promoting digital citizenship and strengthening mindfulness

**Keywords:** Mindfulness, Digital citizenship, University students

### **Introduction**

Mindfulness is often conceptualized using Kabat-Zinn's (2017) definition as awareness that arises through purposeful attention to the present moment and non-judgmental unfolding of moment-to-moment experience (p. 145). This widespread adoption of mindfulness has sparked a growing debate about the diverse purposes, contexts, applications, and impacts of mindfulness as an educational tool (Kenwright et al., 2021). While many advocate the use of mindfulness; Others question its presence in schools, especially when associated with contemplative practices (Brown, 2020; Felver et al., 2013; Jennings, 2016). Mindfulness approaches have also been criticized when positioned as an alternative to education, which is typical of psychological

interventions designed to improve individual skills and cope with the stressors of education and other life circumstances” (Brito et al., 2021, p. 265). . Brito et al. (2021) criticize popular approaches mindfulness in schools promotes individual orientation, performance, and productivity and is marketed as effective therapy-like programs. This contrasts with mindfulness education, where the foundation of deep awareness of attention is inculcated in all aspects of education, and its importance in relation to school courses and curricula.

Due to the importance of the concept of digital citizenship after the widespread spread of informatics and the Internet, many studies have appeared dealing with digital citizenship, due to the rapid changes and developments in information and communications technology. According to Mosberger, Tolbert, and McNeil (2008), this is due to the change in social life consistent with the opportunities provided by the Internet, the risks and problems resulting from this change, and the opportunities that access to the Internet provides to users of digital technology to actively participate and socialize in society at any time. And anywhere, as well as the impact of online activities to promote justice and freedom, and the need for individuals who can use digital technologies effectively and efficiently with a sense of responsibility, in addition to equality of rights and duties, and in the theoretical framework of this study we will discuss the opportunities that the Internet provides in learning and teaching activities as main reasons.

### **Statement of the Problem**

Trait mindfulness has been described as an inherent ability to perceive the present without judging that experience; All people have mindfulness to some degree (Kabat-Zinn, 2003). Although individuals who have not received training in meditative practices may possess latent awareness, most individuals improve their level of awareness through ongoing practice and training (Baer, 2003; Bishop et al., 2004). The two components thought to be most important in mindfulness are the ability to focus on the present and use non-judgmental evaluation of one's thoughts and actions (Baer, 2003; Bishop et al., 2004; Grossman, Niemann, Schmidt, & Wallach, 2004; Hölzel et al., 2011). . They point out that thoughts, feelings and sensations are observed and accepted as existing, without evaluation or classification (Baer, 2003; Bishop et al., 2004). These two conditions for mindfulness may serve as a protective buffer against maladaptive coping mechanisms that arise under conditions of stress – all of which are of great importance for digital citizenship in, for example, avoidance, repression, and obsessive thoughts (Keng et al., 2011). These components are also assumed to be part of the state and characteristics of mental consciousness. Traits of mindfulness have been

linked to positive life outcomes and digital citizenship, and many studies have indicated that not all individuals have the same level of mindfulness, including mental and physical health, social communication, life satisfaction, legal dealings with the Internet, including respect for the rights of others, and digital responsibility (Brown et al. al., 2007.)

Thus the present study addresses the following questions.

1. What is the level of mindfulness and digital citizenship among university students?
2. Is there a statistically significant correlation between mindfulness and digital citizenship?
3. Are there statistically significant differences between male and female students in both mindfulness and digital citizenship?
4. Are there statistically significant differences between students of practical colleges and students of theoretical colleges in both mindfulness and digital citizenship?
5. Are there statistically significant differences between first-year students and fourth-year students in both mindfulness and digital citizenship?

### **Study purposes**

The current study aims to verify the following.

1. Identifying the level of mindfulness and digital citizenship among university students.
2. Examining the correlation between mindfulness and digital citizenship.
3. Studying the differences between male and female students in both mindfulness and digital citizenship.
4. Studying the differences between students of practical colleges and students of theoretical colleges in both mindfulness and digital citizenship.
5. Studying the differences between first-year and fourth-year students in both mindfulness and digital citizenship.

### **The importance of studying**

The importance of the current study is evident through its aim to explore the nature of mindfulness, which works to increase awareness, attention, and self-observation in a way that enhances the reduction of literal adherence to ideas and beliefs, and to determine its relationship to digital citizenship behavior. The importance of this study also stems from the nature of the topic it addresses; as it is Digital citizenship is one of the issues with important dimensions that express the standards of belonging and citizenship and the level of students' participation in achieving the institution's goals. It also expresses their awareness and concern for the interest of the institution to which they belong. It also reflects the extent

of their awareness of their role in confronting the challenges facing their country. This study gains It is of particular importance through the proposals it presents to increase the degrees of mindfulness and digital citizenship behavior in light of the changes taking place in the educational sector, which is one of the most important national sectors, as it sheds light on the most important variables of mindfulness and its dimensions in the education sector, studies its relationship with digital citizenship behavior, and presents Theoretical literature and tools that can be used to conduct other studies that address other variables such as loyalty, belonging, national commitment, and digital development.

## **Literature Review**

### **Mindfulness**

The Oxford Dictionary (2014) defines mindfulness as “a mental state achieved by focusing one's awareness on the present moment while calmly acknowledging and accepting one's feelings, thoughts, and physical sensations.” Mindfulness often refers to specific practices used to focus a person's attention—meditation, breathing, focusing on something—and is characterized by intentionality and non-judgmental observation of experience (Broderick and Jennings, 2012). Mindfulness is often associated with spirituality, but practical applications of mindfulness have been increasingly explored in settings as diverse as the workplace, correctional facilities, and educational institutions. Mindfulness training can be beneficial to help students become more successful learners and more engaged members of the educational community. To determine whether mindfulness education should be integrated into the curriculum at all levels of formal education to help students be more successful in their academic endeavors.

Ergas and Hadar (2019) conducted an empirical study of academic discourse related to mindfulness within schools, which revealed two main modes of “in” and “as” teaching, with the former appearing more frequently than the latter. They noted the importance of external programs and interventions in schools, typically developed using Jon Kabat-Zinn's (2017) Mindfulness-Based Stress Reduction (MBSR) program. Ergas and Hadar describe this approach to mindfulness in schools as “non-didactic” and “effects-oriented,” because it includes efforts to achieve measurable outcomes that typically revolve around physical and mental health and well-being.

While mindfulness-based interventions are likely to improve overall functioning in problematic students (Palmer & Rodger, 2009; Warnecke, Quinn, Ogden, Towle, & Nelson, 2011), inherent trait mindfulness may increase You are also more likely to choose positive coping strategies and more harmful strategies, such as smoking. In non-

clinical populations, higher levels of self-rated mindfulness have been linked to lower levels of perceived stress, as well as lower illicit drug use (Bowen & Enkema, 2014; Caldwell, Harrison, Adams, Quinn, & Greeson, 2010; Warneke et al., 2014). 2011). Furthermore, research suggests that trait mindfulness and mindfulness training may be inversely associated with substance use behaviors (Garland, Roberts-Lewis, Kelley, Tronier, & Hanley, 2016; Hsin Hsu, Collins, & Marlatt, 2013; Karyadi, VanderVeen, & Cyders, 2014). What needs further study is how stress, mindfulness, and coping behaviors can interact with each other in adults and youth.

One source that influences the public's beliefs, views, and actions is the media (Aspler et al., 2018; Renwick, 2016). The ways in which the media explain and interpret ideas, shape beliefs and opinions, and ultimately shape actions, plans and outcomes, in relation to mindfulness in education (2018; Paseka & Schwab, 2020). Studies that have conducted critical analyzes of educational discourses found in news media (e.g. Cohen, 2010; Whitley et al., 2020) show that how a particular topic is explained and interpreted depends on many aspects, including the type and frequency of content covered, and whether What was published, as well as how the content was presented and by whom (Devotta et al., 2013). Van Dam et al. (2018) raise concerns about the general media's tendency to portray mindfulness as a "super cure for what ails humanity" (p. 47), often ignoring precise efficacy data or potential harm reported in the research literature (Odgers et al., 2020). ). However, although there is a growing literature base exploring the use of mindfulness in schools, research on the public narratives surrounding mindfulness is largely sparse. In exploring public discourse around mindfulness, Nearing and Frawley (2020) point to the collective mediation that has contributed to the proliferation of mindfulness initiatives in the wake of Kabat-Zinn's initial work, and in which news media played an important role. In their analysis, these researchers note that mindfulness has been mentioned in the media as a solution to a range of social issues, with articles listing "extensive claims about the benefits of mindfulness and its potential for improvement" (p. 1193). Nehring and Frawley did not specifically define the findings from their analysis as they related to schools or children, adolescents, and young adults.

Professors who use mindfulness approaches in school generally see it as having a positive impact on students, in increasing relaxation, focus, attention, emotional regulation, and empathy (e.g., Kenwright et al., 2021). Many have also reported its benefits for themselves and their own mindfulness practices (Emerson et al., 2017; Norton & Griffith, 2020). However, despite its growing popularity within schools and gaining more

scrutiny in educational and psychological research, mindfulness in schools continues to be discussed, defined, understood and practiced in a range of ways by students, staff, parents and wider communities (Andrew et al., 2021; Brown , 2020; Rendell et al., 2020). For example, in a qualitative study conducted by Wigglesworth and Quinn (2020) of 10 teachers, definitions varied between mindfulness as a mental training exercise; For example, introducing the basic principles within schools - mindfulness as education and self-awareness - as an aid to managing own stresses (p. 304). The basis for evaluating the potential role of mindfulness approaches and interventions in schools is to develop a deeper understanding of how mindfulness is understood and what current prevailing perceptions are regarding this rapidly evolving body of practice. To this end, and in order to explore the ways in which school-based awareness is portrayed in wider society we need further studies.

### **Digital citizenship**

Digital citizenship refers to acceptable standards of behavior related to the use of technology. The Digital citizenship Curriculum, launched in 2010 by Common Sense Education and the Harvard Graduate School of Education, defines digital citizenship as the responsible use of technology for learning, creating, and sharing (James, C., Weinstein, E). . and Mendoza, K., 2019). According to Collier (A., 2009), digital citizenship skills constitute critical and ethical reflection on what has been seen and shared when using technology and communication media. Thus, digital citizen behavioral norms are able to protect teens from engaging in inappropriate behavior, both online and offline, such as cybercrime, bullying, theft, and cyberbullying (Lenhart, A., Madden, M., Smith, A., Purcell, K). & Zikor, K., 2011).

Using technology as an aspect of progress is a must. However, irresponsibility in using technology well is contrary to moral and human values. One way to deal with the misuse of technology is to graduate more people who are aware of being good digital citizens by having a high level of digital citizenship knowledge. Digital citizenship literacy can be achieved through education. ft. Ribble, M. (2015), Digital citizenship in schools as a step for students to differentiate between the good and bad things that happen when using digital technology. Digital citizenship education can be classified as an important means of helping societies understand and address issues that conflict with the ethical and professional values of digital citizenship. At the same time, digital citizenship education opens the way to build a literate society with digital technology and information issues. Select Ripple, M. (2015), nine elements allow students to understand the foundations of digital citizenship, which are as follows:

1. Digital Access: The infrastructure that allows full participation in the use of information technology in society. Since not everyone has the ability to access technology. Many countries do not have access or have limited capabilities to use a computer and even connect to the Internet. Therefore, digital citizens need to promote equal digital rights.
2. Digital trading: This means electronic trading transactions. The Internet has become a world-class shopping mall; Digital citizens need to be smart consumers and not fall prey to online fraud or identity theft. They must also understand that the goods and services provided by electronic sources can violate the laws and ethics of their country.
3. Digital communication: exchanging information electronically. There are many options available for instant communication and collaboration using the Internet. Digital users who text, email, or post content on social media must be aware of the vast and interconnected digital environment with other digital users. Digital citizens need to make appropriate decisions and responsible choices when they communicate and collaborate online.
4. Digital literacy: the process of teaching and learning technology and how to use it. Learning to use technology has become more accessible; Therefore, digital users need to learn how to use technology appropriately. In addition, the concept of education and practice must be compatible with electronic innovation. Modern technology can provide students with a new way of teaching and advanced means of learning.
5. Digital ethics: These are standards of behavior or procedures for using technology. Digital citizens use technology in a seamless and convenient way. Digital citizens also need to be aware of the implicit and explicit rules in using technology.
6. Digital Law: Electronic Liability for Conduct and Actions. Digital citizens are aware of the laws surrounding the use of technology and can distinguish between legitimate and illegitimate use. They comply with copyright and other laws that ensure that use of technology is legal and does not infringe the rights of others.
7. Digital rights and responsibilities: The needs and freedoms granted to everyone in the digital world. Digital citizens use online materials ethically and agree to follow acceptable usage policies as well as rules and laws.
8. Digital health: physical and psychological safety in the world of digital technology. Digital citizens should be aware of the physical as



well as psychological risks in using technology and any other risks that may result from excessive use or addiction to the Internet.

9. Digital security: Cyber security as a precaution. Digital citizenship protects personal information from stolen devices or software technology from virus attacks and security breaches.

Digital citizens have contributed to the digital environment by taking advantage of the opportunities offered by ICT. An effective digital environment can be built using the ICT skills of digital citizens through the principles of ethics, law, security, responsibility and appropriate means Elcicek, M., Erdemci, H. & Karal, H. (2018). Bennett (W.L. (2008) explains that contemporary attitudes such as the trend towards sophisticated tools for digital users personally and socially in cyberspace shape digital citizens who play a role in shaping a safe digital society and environment. Digital citizenship can embrace, educate and teach individuals to be aware of the risks posed by the online environment and Digital users to consciously and appropriately use digital technologies and platforms based on ethical and international principles (Ohler, J., 2011). When building a safe society and a safe environment, it is important to determine the level of digital citizenship of students in terms of personal and social development in cyberspace (Greenhow, C. , Robelia, B. & Hughes, J.E., 2009).

### Research Hypotheses

Therefore, the following hypotheses are suggested answers to the questions of the current study:

1. The level of mindfulness and digital citizenship among university students varies.
2. There is a statistically significant correlation between mindfulness and digital citizenship.
3. There are statistically significant differences between male and female students in both mindfulness and digital citizenship.
4. There are statistically significant differences between students of practical colleges and students of theoretical colleges in both mindfulness and digital citizenship.
5. There are statistically significant differences between first-year students and fourth-year students in both mindfulness and digital citizenship.

### Method

#### Research method

A descriptive research design was used in this study as it attempted to collect data on the prevalence of mindfulness and its association with digital citizenship. Mindfulness includes; attention, awareness to current events and experiences, and digital citizenship includes; Online

wellbeing, Online learning and Online security. This research design is best suited to studies that aim to describe the nature of situations as they existed at the time of the study and to explore the cause of a particular phenomenon. Among the various types of descriptive research design, four have been properly applied: survey, in-depth study, correlation, and comparison.

### Participants:

The sample was chosen based on the stratification random method, and consists of 313 male and female students, representing 4.95% of the main population from both genders and different colleges and academic levels. The final study sample includes 196 students, distributed as shown in Table 1.

*Table 1. Sample Distribution by variables*

Variable level	Number	Ratio
Male	138	44%
Female	175	56%
1st year	169	54%
4th year	144	46%
Theoretical colleges	172	55%
Practical colleges	141	45%
Total	313	100%

### Data Collection tools:

- Digital Citizenship Scale**, This study used a questionnaire as a research instrument, consisting of two parts, namely part A and part B are presented in Table 2. Part A contains the respondents' demographic information, while Section B covers information on the study variable, which is digital citizenship skills; digital citizenship includes; Online wellbeing, Online learning and Online security. The reliability with Cronbach's Alpha value, which measures the variables' internal consistency and reliability are presented, Cronbach's Alpha value is classified based on a reliability index classification where the 0.90-1.00 value is very high, 0.70-0.89 is high, 0.30-0.69 is moderate, and 0.00-0.30 is low. The analysis results showed that the Cronbach's Alpha value was at a high level of classification, which exceeded 0.80. This study instrument has high reliability, the instrument was validated by the content experts among academics. Content validity refers to the extent to which the items on a test are representative of the entire domain the analysis seeks to measure, and this assessment needs to be performed by an appraisal expert. The three experts evaluate the instrument based on characteristics such as: The content of the study instrument is appropriate; The division of ideas into sub-titles is appropriate; The meaning of each study item is exact; The language used is easy to understand; The writing size is appropriate and easy to understand;

The instructions given are clear; The distance between words is appropriate; The Likert scale indicator is precise; There are no spelling errors; The objectives of the instrument are clearly stated. The instrument evaluator consists of two experts in technology education and one from the field of moral education. After the items corrected according to the experts recommendation, the scale became valid for use.

- 2. Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003).** The MAAS was used to measure mindful awareness, or the latent ability to remain anchored in the present. The MAAS operates on a six-point scale that asks participants to rate their attention involvement during 15 everyday experiences (1 = almost always to 6 = almost never)—for example, “I rush through activities without being really attentive to them.” The MAAS has documented adequate psychometric processes (Brown & Ryan, 2003). For the present study, the mean MAAS score, obtained by calculating an average score across all items, was 4.00 (SD = .77; range = 2.37–5.35). This variable was demonstrated to have a normal distribution.

### **Process**

The instruments were administered in the fall semester of the 2022-2023 academic years. Before implementation, permission was obtained from the responsible authorities. After that, the researcher went to the selected colleges and conducted the study with student volunteers after also obtaining the permission of the professors.

### **Data analysis**

Quantitative data collected through questionnaires were analyzed using means, standard deviations, linear correlation coefficient, and t-test. Through this statistical analysis, the level of prevalence of both mindfulness and digital citizenship, the correlation between them, and the differences in each of them according to the student's gender, type of college, and academic level were examined.

### **Results**

Means and standard deviations were calculated for the study variables (mindfulness and digital citizenship). The analysis indicates that the mean (M) score was between 2.29 and 2.91, the standard deviation (SD) was between 0.540 and 0.701, the skewness was between 0.118 and 0.189, and the kurtosis was between 0.207 and 0.273. Normality check was performed by the Kolmogorov-Smirnov test. The normality assumption can be said to be met if the p-value result is greater than  $\alpha = 0.05$ . Through the SPSS program, the results of the normality assumption test were obtained, as shown in Table 2.

*Table 2. Means, standard deviations, skewness, kurtosis, and Kolmogorov-Smirnov coefficient for mindfulness and digital citizenship*

Variable	D	Skewness	Kurtosis	Kolmogorov-Smirnov Coefficient	value	Note
Mindfulness	3.42	0.711	0.115	0.201	0.763	0.523 Normal
Digital citizenship	3.91	0.645	0.139	0.213	0.870	0.415 Normal

Based on Table 2 above, the p-value was between 0.415 and 0.523, which is greater than  $\alpha = 0.05$  ( $p > 0.05$ ). It can be concluded that normality assumption was met.

**Hypothesis 1:** The level of mindfulness and digital citizenship among university students varies.

### Level of mindfulness

The level of mindfulness is analyzed through three sub-variables: attention, awareness to current events and experiences. To facilitate interpretation of the levels of each variable, this study divided the levels into three levels (low, medium, and high). The cut-off point is used to determine the level of digital citizenship skills as follows; low (1- 2.66), medium (2.67-4.34), high (4.35- 6).

*Table 3. The construct level of mindfulness*

Variables	Mean	Std. Deviation	Level	Ranking
Attention	4.01	2.09	Medium	1
Awareness to current events	2.97	1.73	Medium	2
Experiences	2.36	2.11	Low	3
Mindfulness	3.11	2.23	Medium	

Table 7 shows that the level of mindfulness among students is medium, with a mean of 3.11 and a standard deviation of 2.23. The skill variables were divided into three sub variables, namely attention ( $M=3.46$ ,  $SD=1.73$ ) at the medium level, Awareness to current events ( $M=2.97$ ,  $SD=.456$ ), and Experiences ( $M=2.36$ ,  $SD=2.11$ ) at a low level.

### Level of digital citizenship.

The level of digital citizenship skills is analyzed through three sub-variables: Online well-being, online learning and online security. To facilitate interpretation of the levels of each variable, this study divided the levels into three levels (low, medium, and high). The cut-off point is used to determine the level of digital citizenship skills as follows; low (1- 2.66), medium (2.67-4.34), high (4.35- 6).

*Table 4. The construct level of digital citizenship*

Variables	Mean	Std. Deviation	Level	Ranking
Online wellbeing	4.39	1.83	High	1
Online learning	3.01	1.91	Medium	2
Online security	2.96	2.03	Medium	3

**Digital citizenship 3.45 2.07 Medium**

Table 4 shows that the level of digital citizen among students is medium, with a mean of 3.45 and a standard deviation of 2.07. The skill variables were divided into three sub variables, namely online well-being skills (M=4.39, SD=1.38) at the high level, online learning skills (M=3.01, SD=1.91) at a medium level, and Online security (M=2.96, SD=2.03) at a medium level.

**Hypothesis 2:** There is a statistically significant correlation between mindfulness and digital citizenship.

*Table 5 shows the correlation between mindfulness, and digital citizenship.*

Variable	Correlation	Mindfulness	Digital citizenship
Mindfulness	Pearson Correlation	1	0.735**
	Sig.		0.000
	N		313
Digital citizenship	Pearson Correlation		1
	Sig.		
	N		313

Table 5 shows a positive and statistically significant relationship between mindfulness and digital citizenship. This result is supported by the results of Table 5 above, where the averages are high (0.735) compared to the highest value of 1, which indicates that these two variables are related to and dependent on each other; Therefore, the relationship between them is positive. Hence, it can be said that these results prove the acceptance of the first hypothesis proposed in this study.

**Hypothesis 3.** There are statistically significant differences between male and female students in both mindfulness and digital citizenship. Results related to the third hypothesis are presented and discussed in the following section:

Table 6 shows the differences between male and female students' in both mindfulness, and digital citizenship.

*Table 6. T-test of the differences between male and female students' mindfulness and digital citizenship.*

Variable	Gender	N	Mean	Std. Deviation	t	DF	Sig.
Mindfulness	Male	138	3.58	1.93	1.44	311	0.115
	Female	175	3.36	2.14			
Digital citizenship	Male	138	3.16	1.79	3.93	311	0.000
	Female	175	3.96	2.68			

Table 6 indicates that there are no statistically significant differences between male and female students in mindfulness. This result indicates that both male and female students have similar mindfulness. However, the table indicates that there are statistically significant differences between male and female students in digital citizenship in favor of female students. Therefore, this result proves that the third hypothesis is partially accepted regarding these variables.

**Hypothesis 4.** There are statistically significant differences between students of practical colleges and students of theoretical colleges in both mindfulness and digital citizenship. Table 5 shows the differences between students of practical colleges and students of theoretical colleges in both mindfulness and digital citizenship.

**Table 7. T-test of the differences between students of practical colleges and students of theoretical colleges in both mindfulness and digital citizenship**

Variable	College	N	Mean	Std. Deviation	T	DF	Sig.
mindfulness	Practical colleges	141	3.57	2.12	2.95	311	0.05
	Theoretical colleges	172	3.04	1.30			
digital citizenship	Practical colleges	141	3.463	1.81	1.65	311	0.08
	Theoretical colleges	172	3.27	2.17			

Table 7 shows that there are statistically significant differences between students of practical colleges and students of theoretical colleges in mindfulness in favor of students of practical colleges, while there are no differences between students of practical colleges and students of theoretical colleges in digital citizenship, and these results partially prove the validity of the fourth hypothesis.

**Hypothesis 5.** There are statistically significant differences between first-year students and fourth-year students in both mindfulness and digital citizenship. Table 6 shows the differences between first-year students and fourth-year students in both mindfulness and digital citizenship.

**Table 8. T-test of the differences between first-year students and fourth-year students in both mindfulness and digital citizenship..**

Variable	Academic level	N	Mean	Std. Deviation	T	DF	Sig.
Mindfulness	First-year	169	3.08	1.95	3.44	311	0.000
	Fourth-year	144	3.66	2.24			
Digital citizenship	First-year	169	3.14	1.89	3.93	311	0.000
	Fourth-year	144	3.92	2.63			

Table 8 indicates there are statistically significant differences between first-year students and fourth-year students in both mindfulness and digital citizenship, in favor of fourth-year students. These results confirm acceptance of the fifth hypothesis.

### **Discussion**

Because mindfulness appears to have an important and significant role in education, mindfulness education will likely be integrated into curricula at all levels of education to help students be more successful and more digital citizens. The level of mindfulness appears to have a positive impact on digital citizenship by helping students become aware of their societal responsibilities - even those who struggle to concentrate, be more organized, plan for the future, perform better in IT, and think critically. These students trained in mindfulness are more likely to conduct themselves in an elegant manner by university standards; Colleges even saw fewer dramatic behavioral problems such as a reduction in bullying with the implementation of mindfulness instruction. Students in people-centered, emotionally taxing programs of study, such as medicine and practical science, are better able to serve their clients and take care of themselves when mindfulness is integrated into life skills, and this appears to be more evident among male students than male students and students at higher levels of study compared to male students. Minimum tuition. Research on mindfulness in education shows its benefit at all ages and grade levels, from elementary school to middle school to high school to undergraduate studies to graduate programs and professional degrees. In an era of dwindling funding for training, introducing new approaches is rarely an easy task; However, mindfulness training can be free or at least inexpensive, and can be integrated into existing classes or created as stand-alone classes. The benefits of mindfulness can be achieved in other aspects of students' lives by improving concentration skills, awareness, problem solving, controlling emotions, building relationships, reducing stress, assuming societal responsibilities, and optimal dealing with information technology and the Internet.

The results indicated that the degree of mindfulness is moderate. The average degree is a positive indicator for these students, but it is less than the level of ambition. This average result may be attributed to the fact that university students are able to deal with crises in a way that does not affect the course of the educational process and the achievement of its goals, which may indicate their ability to manage the crises and difficult situations they face while carrying out their educational mission. This result may have reflected the students' weak confidence in the educational institution to the point that they cannot disclose the mistakes they committed, which may affect the nature of the prevailing

relationship between the students on the one hand, and their teachers on the other hand, and this will negatively reflect on the nature of the relationships within the educational institutions, and on the functioning of Educational science.

This result may be attributed to the teaching experience that teachers possess that enables them to provide assistance to students, clarify what should be clarified in the field of educational science, and direct students towards sources of knowledge, whether related to practical material or the teaching method most appropriate to the different topics of the subject or subjects that they teach.

This result may be due to the hesitation and unacceptance of change that professors suffer from, and the resistance to this change that occurs, and the extension of this to what takes place within universities in terms of systematic and extracurricular activities and events, especially since change is the hallmark of the current era in light of the spread of contemporary technology and what accompanies it. Changes in all areas. This resistance must be faced and overcome to enable students to overcome the difficulties and obstacles they face while performing their educational and pedagogical tasks.

This result may also be attributed to the students being able to benefit from the mistakes they commit, and view them as lessons that they will employ in their academic lives by overcoming them in the future and finding a solution or solutions on how to overcome these mistakes, in a way that is in the interest of the educational process and their interests. Whether with regard to their feelings or the feelings of others, rejecting bias towards a particular party at the expense of another, committing to righteous behavior and adopting ethical humanitarian principles. This result may also be attributed to the negotiation process conducted by professors regarding the differences that occur among them, by taking into account and respecting the differing opinions of students, which may enhance these students' respect for their professors and each other, and push them to exert more effort and work towards achieving academic goals.

These results may be due to the feedback students receive about the skills they achieve and the work they do, the impact of that on their teaching performance, and its reflection on the overall work education within the institution. Also may have been due to the long time students spent interacting with daily university situations effectively, especially in crisis situations, and how to deal with them and its management to exceed it and achieve the goals of the educational institution. This result may be attributed to a degree of appreciation these students believe in the importance of general knowledge and specialized knowledge that benefit



them in carrying out their teaching tasks more than their appreciation of the authority represented by the university administration, especially if this administration is authoritarian in its procedures and decisions and does not give students any opportunity to express their opinions - and this result may have reflected the positive side of behavior. Leadership through the opinions and ideas presented by students towards current topics, as well as the positive behavior of the students themselves through their practice of dialogue when some differences occur among them.

### **Conclusions**

This study aims to understand the relationship between mindfulness and digital citizenship among university students. The study showed that students in practical colleges, compared to theoretical colleges, are more capable of mindfulness, as they can develop the level of attention and awareness and reduce distractions. However, they are equal in digital citizenship due to the similar daily experiences to which they are exposed. The female students were more digital citizens while they were less mindful due to the difference in interests between them. The fourth level students also excelled in both mindfulness and digital citizenship due to the depth of the experiences they had within University, the study also showed that there is a statistically significant correlation between mindfulness and digital citizenship, and this is logical as the development of the individual's cognitive system leads to the growth of digital social responsibility, and that these students have a great opportunity to develop their level of attention, awareness and expertise towards the optimal use of information technology and the Internet.

### **Future Research and Recommendations**

More research into mindfulness and digital citizenship would be helpful to guide discussion on how to implement them with greatest impact for students inside and outside formal institutions. Research can focus on different approaches to mindfulness (meditation, mindfulness and experience of current events and future experiences) to determine which are most effective and may find that different groups benefit more from one approach versus another. Other academic and professional programs that train students in interpersonal life skills, responsibility, citizenship, and belonging can apply lessons learned by social and national work students; All law enforcement and digitally ethical citizens as well as those working in business administration can begin their careers better equipped to handle difficult situations and maintain a healthy emotional outlook as a complement to the technical skills provided by formal education. Technology, Internet, and distance learning instructors can use mindfulness to help their colleagues work together more collaboratively to achieve accountable and effective digital

goals. In short, mindfulness can be an effective tool to transform students into better digital learners and educational institutions into effective, differentiated, and responsible digital learning communities.

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