

MIND WANDERING AND QUALITY OF LIFE AMONG ADOLESCENTS AND YOUNG ADULTS: PREDICTIVE ROLE OF MEDIA MULTI- TASKING

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Received: June 21, 2024

Revised: July 31, 2024

Accepted: August 11, 2024

Published: August 21, 2024

ABSTRACT

This study had the primary objective of examining the predictive role of media multi-tasking for both mind wandering level and quality of life among adolescents and young adults. Additionally, we aimed to investigate the impact of demographic variables, including age, gender, education, and socio-economic status, on these variables. We conducted our research with a sample of 400 students aged between 14 and 30 years, selected from various locations within the Hazara Division, including Mansehra, Abbottabad, Haripur, Oughi, Battagram and Havalian, using a convenient sampling method. Data collection involved utilizing the the World Health Organization Quality of Life Scale, Media Multitasking Revised Scale, , and the Mind Wandering Questionnaire. Our research results unveiled a direct link between engaging in multiple media activities simultaneously and the occurrence of wandering thoughts, with a contrasting connection observed between multitasking with media and one's overall quality of life. Additionally, our analysis highlighted that media multitasking significantly detracted from one's quality of life while concurrently enhancing the frequency of mind wandering. Significant gender differences as females demonstrating a significantly higher propensity for mind wandering as compared to males. Furthermore, young adults exhibited a higher degree of media multitasking and mind wandering compared to adolescents. In terms of educational differences, university students displayed greater involvement in media multitasking, higher levels of mind wandering, and reported a poorer quality of life. Socio-economic disparities revealed that the individuals from higher socio-economic backgrounds are showing increased engagement in media multitasking and greater levels of mind wandering while individuals with lower class reported higher level of quality of life.

Keywords: Mind wandering, Media multitasking, quality of life, adolescents, young adults

INTRODUCTION

Multitasking has become a prevalent aspect of life for many young individuals. They dedicate considerable time to engaging with various media through multiple devices. It's noteworthy that a substantial 84.7% of young people partake in media multitasking while online, with a majority (57.8%) being heavy users of social media (Ahmed et al., 2016). Individuals who partake in media multitasking appear to encounter difficulties when engaging in tasks that require sustained, focused attention within the realm of attention (Ralph et al., 2015). Prior studies have indicated that the capacity of individuals who engage in media multitasking to effectively screen out irrelevant information is

impacted by the frequency of their media consumption (Alzahabi & Becker, 2013; Sanbonmatsu et al., 2013).

Research findings consistently demonstrate that habitual media multitaskers perform less effectively across a variety of cognitive activities, regardless of the presence of distractions (Uncapher et al., 2016). Media multitasking can divert focus away from the primary task, as it is associated with a Studies have shown that people who often switch between different media activities might not do as well in various mental tasks, even when there are no distractions (like your phone buzzing). Some studies found that those who are used to doing

many things at once can have trouble ignoring things that aren't important. This research we did looked at how often people switch between different media activities, like checking their phone or watching TV, and how often they let their minds wander. We thought that people who switch a lot might daydream more. We also thought that switching a lot might make people less focused and more likely to daydream, which can be a distraction broader distribution of attention (Sanbonmatsu et al., 2013), allowing a wider range of information to enter working memory.

Mind wandering, characterized by thoughts disengaged from external surroundings and unrelated to the current situation (Stawarczyk et al., 2011), is a common phenomenon in daily life (Killingsworth & Gilbert, 2010). Mind wandering can occur either deliberately or unintentionally, a distinction with significance for various aspects of well-being and cognition (Seli et al., 2014). Notably, mind wandering significantly impacts cognitive performance assessments, leading to reduce the level of general intelligence level (Mrazek et al., 2012) and their driving skills are also impaired (Yanko & Spalek, 2013a, 2013b; Christoff et al., 2009). Mind wandering results in performance errors (Mcvay & Kane, 2009) by changing the variability in person's level of reactions (Seli et al., 2013) and also reported several physiological based changes, such as brain activity become fluctuated (Mcvay & Kane, 2009).

In recent times, researchers have become more aware of how wandering of mind can impact our ability to focus on important tasks. Daydreaming has been found to play a significant role in causing problems with understanding what we read (Unsworth & Mcmillan, 2013) and paying attention during lectures (Szpunar et al., 2013). Many studies (Cutino & Nees, 2017; Ellis et al., 2010; Lawson & Henderson, 2015; Wood et al., 2012) have shown that trying to do multiple things at once, like multitasking, can harm our ability to learn and remember information, which can affect how we enjoy life. Quality of life is a measure of how well our actual life matches what we want it to be. It depends on many things, not just physical health and age but also how we feel socially and emotionally, and how we react to these factors (Brown et al., 2004). Overall,

quality of life is seen as a complex idea that includes different aspects like medical, emotional, and financial factors (Razo-gonzalez et al., 2014). It is worthy to take note that our cognitive processes operate within a bottleneck framework, which allows us to focus on one task at a time due to limited attentional resources (Maslovat et al., 2013). Stimuli must be filtered because of these limitations in attention resources. The bottleneck hinders the processing of secondary tasks until the primary task is completed. Prolonged multitasking can disrupt cognitive function (vandur-Schuur et al., 2015; Uncapher et al, 2016). Extensive multitasking can exert significant strain on attentional capacity, resulting in impairments in cognitive control (Chinchanachokchai et al., 2015; Ophir et al., 2009). Consequently, media multitasking can lead to performance errors due to distraction, ultimately diminishing overall performance (Courage et al., 2015).

Rationale of the Study

The growing trend of people doing multiple media activities at once has led to investigations into its harmful effects. Many studies have explored this and found that it can negatively affect how well young people can control their thoughts, do well in school, sleep, and think clearly (Winneke et al., 2015). Research has even shown that doing a lot of media multitasking can lead to having a fixed mindset (thinking you can't change or improve), problems with thinking and planning, and lower grades in school (Cain et al., 2016). These things are directly connected to how good someone's life feels overall. Studies have also suggested that how much money you make, your gender, and the situation you're in can all play a role in how likely you are to do a lot of media multitasking (Ahmed et al., 2016).

Similarly, a substantial body of research has addressed the phenomenon of mind wandering, with a primary focus on how attention level is adversely affected by it (Xu et al., 2017). In the same manner, the available theoretical material related to mind wandering predominantly pertains to young adults and adolescents. Again, there is an observed association between increased media multitasking, reduced growth mindset, lower

executive functioning, poor academic achievement, and overall quality of life (Cain et al., 2016). Quality of life encompasses various domains such as material well-being, psychological state, and social relationships. Studies exploring the influence of social and demographic variables on quality of life, including gender differences, health-related factors, and social support, exist across different countries (Lee et al., 2020).

Very limited theoretical data is existed regarding the impact of media multitasking on both the level of mind wandering and quality of life. This study aims to contribute to the quality of life and mind wandering. In the current landscape, the behavior of media multitasking and its increasing frequency are giving rise to various issues, including mind wandering and its disruptive consequences among youth (Mrazek et al., 2013), resulting in distractions, reduced attention, poor performance, and mental health concerns. While European countries have reported such issues, the generalizability of their results to Pakistan is limited due to gender roles and cultural distinctions. There is a scarcity of studies conducted in specific regions of Pakistan that investigate media multitasking and its effects. Therefore, this research aims to bridge this gap in the literature by examining the role of media multitasking among both teenagers and young adults, with a focus on gender differences, educational levels, and socio-economic status. This study seeks to provide comprehensive and enriched insights into the phenomenon of media multitasking.

Objectives

The current study has two primary objectives:

- i. To assess the predictive role of media multitasking for quality of life and level of mind wandering on adolescent and young adults.
- ii. To explore the involvement of individual's age, their gender, income, and educational level on quality of life, media multitasking and mind wandering level.

Hypotheses

The current research hypotheses can be summarized as follows:

- i. Individuals with higher level of Media multitasking will have higher level of mind wandering and have low quality of life on adults and teenagers.
- ii. There exists a negative relationship between mind wandering and quality of life.
- iii. Females exhibit higher levels of media multitasking, higher level of mind wandering, and have poor quality of life as compared to males.
- iv. Young adults are more involved in mind wandering and media multitasking, while teenagers have higher level of quality of life.
- v. Media multitasking and mind wandering will be higher and quality of life will be poor among Individuals with high class of socio-economic status (SES)

Methodology

Research Design

The present research is based on descriptive survey design to explore the relationship and prediction of variables.

Sample

The sample for this study consisted of 400 screened adolescents and young adults. They were selected using a convenient sampling technique from various locations in the Hazara Division, including Mansehra, Havalian, Haripur, Abbottabad, Oghi and Batagram. The sample was further categorized based on gender, with 209 males and 191 females. Additionally, participants were classified by age, resulting in 198 teenagers and 202 young adults. Their educational backgrounds were also taken into account, with 192 being college students and 207 attending university. Socioeconomic status was a further distinguishing factor, with 95 classified as upper class, 211 as middle class, and 94 as lower class. Inclusion criteria for the sample were as follows: participants had to be teenagers or young adults engaged in media multitasking behavior, aged between 14 and 30 years, and residents of the specified areas in the Hazara Division. Exclusion criteria included individuals below 14 years or above 30 years of age, those residing in districts

other than Haripur, Manshera, and Abbottabad within the Hazara Division, as well as those who solely used one form of media continuously for extended periods without switching to another

Instruments

Demographic sheet

The questionnaire was used to ask participants for details about their age level, gender, level of education, and their SES level.

Media multitasking revised (MMT-R) Scale

The MMT-R (Media Multitasking Tendency - Revised) was created by Lopez in 2018. It consists of 18 items, each offering five response options ranging from 1 (Never) to 5 (Always). The author reported that the scale has a reliability coefficient (α) of 0.86. The possible scores on this scale ranges from 18 (minimum score) to 90 (maximum score; Lopez, 2018). It's worth noting that the first item on the scale is reverse-scored, meaning that a higher response indicates a lower tendency for media multitasking.

Mind wandering questionnaire (MWQ)

The MWQ (Mind Wandering Questionnaire) is a brief questionnaire comprising five items designed to gauge one's propensity for mind wandering as a trait. It employs a Likert scale of six-point, ranging from almost never (1) to most often (6) for responses. The total score on the MWQ falls within the range of 5 to 30. On this scale higher scores reflects a greater inclination towards mind wandering, and conversely. Mrazek et al. (2013), reported a reliability coefficient (alpha) of 0.89 for the entire scale.

The World Health Organization HO Quality of Life Scale-Brief (WHOQOL-Brief)

The WHOQOL-Brief scale comprises 26 statements, out of which statement number 3, statement number 4, and statements number 26 being scored in reverse direction. The overall reliability level (alpha coefficient value) for the whole scale was 0.75 as reported in table 1. Higher scores indicate a better quality of life, while lower scores indicate a worst level of quality of life (WHO, 1998).

Procedure

In order to carry out this research, the initial approach involved contacting a total of 600 individuals, from whom a final sample of 400 participants was selected. Inclusion in the sample was based on a positive response to the query, "Do you engage in media multitasking?" This referred to the practice of switching between multiple media apps or devices simultaneously. Following the screening process, informed consent was obtained solely from those individuals identified as media multitaskers. The selected media multitaskers were residents of key areas within the Hazara Division, including Haripur, Abbottabad, Havalian, Batagram, Oghi, and Mansehra. Prior to their participation, adults were presented with consent forms that outlined the purpose of the current study. Alongside the questionnaires, two screening items were provided, and participants were guided to complete the questionnaire items diligently, ensuring that none were overlooked. Any queries related to the study were also addressed at this stage. The response rate achieved was 75%. Data collection commenced on September 1st and continued until October 5th. At the conclusion of their participation, participants were extended gratitude for their valuable contributions.

Data Analyses and Interpretation

The collected data underwent analysis using 22 version of SPSS (Statistical Packages of Social Sciences). Alpha reliability was computed to assess internal consistency. Descriptive statistics were employed to elucidate the mean psychometric attributes of all measures. Correlation studies were conducted to ascertain the strength and direction of the relationships between variables. Linear regression was utilized to assess the predictability of the variables, and ANOVA was applied to investigate socio-economic disparities concerning the research variables.

Results

In this present research, a total of screened 400 media multitaskers, encompassing both teenagers (adolescents) and young adults, were subjected to analyses. Statistical methods alpha coefficient (used to analyzed internal consistency of scales), independent t-test (used to compare the mean of different groups), linear regression (to check the

predictive role of IV on DV), and ANOVA (to check the mean comparisons on more than three groups) were employed. The results were derived

using the most recent version of SPSS, and they are presented below:

Table 1

Psychometric characteristics of WHOQOL-Brief, MMT-R, and MWQ (N = 400)

| Scales | α | No of Items | M | SD | Range |
|--------|----------|-------------|-------|-------|--------|
| MMT-R | .86 | 18 | 52.13 | 10.91 | 28-88 |
| WHOQOL | .89 | 26 | 89.22 | 12.52 | 51-129 |
| MWQ | .75 | 5 | 18.12 | 5.34 | 6-29 |

Note. = World Health Organization Quality of Life-Brief; MMT-R = Media Multitasking Revised Scale; MWQ = Mind Wandering Questionnaire.

Table 1 indicated that the alpha values for the MMT-R, WHOQOL-Brief and MWQ are .86, .89, and .75, respectively. All these values indicate that internal consistency of all scales is above average.

Table 2

Inter-Correlation matrix among Quality of Life, Media Multitasking and Mind Wandering.

| Variables | n | I | II | III | M | SD |
|------------------|-----|---|--------|---------|-------|-------|
| I. Mult.Med.Tas. | 400 | - | .475** | -.363** | 53.36 | 10.96 |
| II. Min.Wand. | 400 | - | - | -.236** | 17.22 | 5.24 |
| III. Qua.lif. | 400 | - | - | - | 88.96 | 13.57 |

Note. Mult.Med.Tas.=multi-media tasking, Min.Wand.=Mind Wandering, Qua.lif.= Quality of life

Table 2 indicated that media multitasking is significantly positively linked with mind wandering, and significantly negatively linked with quality of life. On the other side quality of life also had significant negative association with mind wandering.

Table 3

Simple Linear Regression Analysis Predicting Wandering of Mind level and Life's Quality from Multitasking on Media (N = 400)

| Variables | R | R ² | B | B | F | SE |
|-----------|------|----------------|-------|-------|--------|------|
| Qua.lif. | .364 | .133 | -.451 | -.364 | 61.51 | .059 |
| Min.wand. | .476 | .227 | .228 | .476 | 116.90 | .022 |

Note. Min.Wand.=Mind Wandering, Qua.lif.= Quality of life

Table 3 illustrate that media multitasking act as significant negative predictor of quality of life ($\beta = -.343$, $t = -7.78$, $p = .001$) by creating in quality of life by 13.3 % $\{\Delta R^2 = 13.3, \Delta F = 61.51 (1, 398)\}$. In the same way media multitasking act as significant positive predictor of mind wandering ($\beta = .476$, $t = 10.78$, $p = .001$) which create 22.7 % variance in mind wandering $\{\Delta R^2 = 22.7, \Delta F = 116.90 (1, 398)\}$.

Table 4

Independent sample t-test analysis of gender on Mind Wandering level, Media Multitasking, Quality of Life among individuals (N = 400).

| Variable | Male (n = 208) | | Female (n = 192) | | t (398) | p | Cohen's d |
|---------------|-------------------|------|---------------------|------|---------|------|--------------|
| | M | SD | M | SD | | | |
| Mult.Med.Tas. | 52.99 | 10.5 | 53.77 | 11.4 | 1.36 | .472 | 0.07 |
| Min.Wand. | 87.95 | 14.0 | 90.92 | 13.0 | -6.07 | .092 | 0.21 |
| Qua.lif. | 16.34 | 5.07 | 18.1 | 5.28 | 4.88 | .000 | 0.34 |

Note. Mult.Med.Tas.=multi-media tasking, Min.Wand.=Mind Wandering, Qua.lif.= Quality of life

Table 4 indicates that gender of respondents do not create any differences in their responses on quality of life and media multitasking. Significant

difference of gender appeared on mind wandering in which females have higher tendency to indulged in mind wandering in contrast to males.

Table 5

Independent sample t-test analysis of age on Wandering of Mind level, Life's Quality from and Multitasking on Media (N = 400).

| Variable | Teenagers (n = 199) | | Young Adults (n = 201) | | t (398) | p | Cohen's d |
|---------------|------------------------|-------|---------------------------|-------|---------|------|--------------|
| | M | SD | M | SD | | | |
| Mult.Med.Tas. | 50.43 | 8.77 | 58.24 | 12.58 | -7.83 | .000 | 0.77 |
| Min.Wand. | 91.87 | 12.36 | 88.90 | 16.38 | 1.72 | .080 | 0.20 |
| Qua.lif. | 15.23 | 5.19 | 19.29 | 5.30 | -4.12 | .000 | 0.40 |

Note. Mult.Med.Tas.=multi-media tasking, Min.Wand.=Mind Wandering, Qua.lif.= Quality of life

Table 5 indicates that age of respondents have significant differences with reference to quality of life and their media multitasking level, which shows that young adults are more involved in

multimedia tasking behavior while better quality of life is observed in teenagers. Mind wandering level is non-significantly effected by the age of respondents.

Table 6

Independent sample t-test analysis of Educational level on Wandering of Mind level, Life's Quality from Multitasking on Media (N = 400).

| Variable | Clg Students (n = 192) | | Uni students (n = 207) | | t(398) | p | Cohen's d |
|---------------|---------------------------|-------|---------------------------|-------|--------|------|--------------|
| | M | SD | M | SD | | | |
| Mult.Med.Tas. | 50.53 | 9.20 | 57.92 | 12.21 | -7.22 | .000 | 0.72 |
| Min.Wand. | 91.23 | 12.15 | 87.86 | 12.30 | 4.34 | .000 | 0.33 |
| Qua.lif. | 16.69 | 5.34 | 20.67 | 4.53 | -5.99 | .000 | 0.59 |

Note. Mult.Med.Tas.=multi-media tasking, Min.Wand.=Mind Wandering, Qua.lif.= Quality of life

The respondents' educational level create significant differences on wandering of

mind level, life's quality from and multitasking on media as depicted in Table 6. It was found in

table 6 that highly educated students have better quality of life and are more indulged in media

multitasking; while less educated students have experience higher level of wandering of mind.

Table 7

Mean comparisons of students’ Socio-economic status on Wandering of Mind level, Life’s Quality from and Multitasking on Media (N = 400)

| Variable | Upper class (n = 97) | | Middle class (n = 210) | | Lower class (n = 96) | | F | p | η ² | Tukey test |
|------------|----------------------|-------|------------------------|-------|----------------------|-------|-------|------|----------------|------------|
| | M | SD | M | SD | M | SD | | | | |
| Mul.Me.Ta. | 57.31 | 14.04 | 53.03 | 9.28 | 52.22 | 9.92 | 6.38 | .002 | 0.59 | 1 > 2 > 3 |
| Min.Wand. | 86.03 | 13.78 | 91.98 | 12.81 | 84.51 | 12.03 | 13.80 | .000 | 0.94 | 2 > 3 > 1 |
| Qua.lif. | 19.72 | 4.67 | 17.02 | 5.06 | 17.23 | 5.28 | 5.96 | .003 | 0.50 | 1 > 2 > 3 |

Note. Mul.Me.Ta.= multi-media tasking, Min.Wand.=Mind Wandering, Qua.lif.= Quality of life **p < .01; *p < .05

Table 7 depicts that socioeconomic status of respondents create significant difference on their level of media multitasking, mind wandering and quality of life. This table reported that students with high socio-economic status experience more

feeling of mind wandering and have higher tendency to be media multitaskers. On the other side students with middle class possesses better quality of life than others.

Discussion

The primary objective of this research was to investigate the influence of multitasking behavior on media on both wandering of mind and life’s quality. Additionally, the study aimed to explore demographic variations, including factors such as gender, age, education, and socioeconomic status, in relation to media multitasking, wandering of mind and life’s quality. To achieve these objectives, three assessment scales were utilized. Before administering these scales, a screening test was employed to identify sample (both teenagers and young adults) which were engaged in media multitasking behavior.

The study's results provide support for the first hypothesis, indicating a strong positive correlation between media multitasking and mind wandering (as demonstrated in Table 5). This finding aligns with previous research that has established a connection between media multitasking and wandering of mind (Ophir et al., 2009; Sanbonmatsu et al., 2013). It was also suggested by many other studies that individuals who engage in media multitasking are more prone to experiencing wandering of mind in their daily lives (Ralph et al., 2013).

Furthermore, the analysis uncovers a significant negative relationship between mind wandering and quality of life, consistent with the second hypothesis. This result is in line with existing literature, which underscores the detrimental impact of absentmindedness on overall well-being (Frieese & Hofmann, 2016; Killingsworth & Gilbert, 2010). Moreover, excessive mind wandering has been linked to psychopathological symptoms and diminished quality of life (Biederman et al., 2019). Research has also associated mind wandering with unfavorable outcomes such as dissatisfaction (Killingsworth & Gilbert, 2010) and impaired performance in tasks requiring sustained attention (Mrazek et al., 2012), including (Mcvey & Kane, 2012; Smallwood et al., 2008; Smilek et al., 2010). It is noteworthy that daily psychological stress can hinder one's ability to be fully present in the moment, whereas strong social connections enhance presence, thereby contributing to higher overall well-being (Crosswell et al., 2020).

The present study's results further support the first hypothesis, indicating a significant positive relationship between media multitasking and mind wandering (as displayed in Table 6). This aligns with evidence suggesting that media multitaskers experience mind wandering more frequently in their daily lives, regardless of the

presence of distractors (Ralph et al., 2013). Additionally, media multitasking behavior effect the performance of individual to its worst level (Uncapher et al., 2016).

Regarding the third hypothesis, the study identified gender of respondents' significantly differentiate their wandering of mind level, as in comparison to men the women exhibiting a higher level of wandering of mind. This finding is consistent with previous research by Yousaf et al. (2015), which suggests that women are more prone to mind wandering, possibly due to higher levels of dissatisfaction with their current lives. Furthermore, as females mostly involve in those activities which do not need much intellectual ability, such as different chores at house, that may facilitate their wandering activity of mind (Yousaf et al., 2015).

The study also addressed the fourth hypothesis, revealing differences in socioeconomic status among participants in terms of multitasking behavior on media, wandering of mind and life's quality (as shown in Table 10). All these findings get supported by the notion that monthly salary of individual has positive association with their media multitasking behavior. Another study conducted by Ahmed et al. (2016) also provide support to this finding by explaining that children from wealthier families tend to be more prolific multitaskers than their counterparts from lower and middle-class backgrounds.

Additionally, substantial educational differences were observed in multitasking behavior on media, wandering of mind and life's quality (as indicated in Table 10). University students were found to be more actively engaged in media multitasking than college students. This is consistent with recent studies suggesting that university students often possess multiple devices and are encouraged to engage in multitasking (Dukic & Aleksic, 2018; Stamenkovic, 2018). Furthermore, college students exhibited a higher quality of life compared to university students, aligning with research indicating that individuals with a college education tend to score higher on various indices of quality of life (Pascarella & Terenzini, 2005).

Conclusion

The results of this study explicitly found a positive correlation between media multitasking

and mind wandering, as well as a negative correlation between media multitasking and quality of life. Engaging in media multitasking leads to an increase in mind wandering and at the same time it simultaneously reducing overall quality of life. Furthermore, both level of their education and their monthly salary (socio-economic status) exert significant influences on the study variables. Age demonstrates a noteworthy impact on media multitasking and mind wandering, whereas it does not significantly affect quality of life. In terms of gender differences, a significant effect is observed on mind wandering, whereas no significant disparities emerge in relation to multitasking behavior on media and life's quality.

Current research Limitations and future research Suggestions

This study was conducted with a sample consisted of n=400 media multitaskers, (comprising 209 men and 191 women), drawn from various locations in Hazara Division, including Abbottabad, Mansehra, Havelian, Oughi, Batagram, and Haripur. The aim was to shed light on potential aspects related to media multitasking. Future research endeavors could expand upon these findings by increasing the sample size and exploring additional regions across Pakistan. While this study focused on specific demographic characteristics of respondents (their age, their educational level, gender, and their socio-economic status based on their monthly income), future research could investigate other factors influencing multitasking behavior on media, such as cultural variations, geographical areas, and personality traits.

In this research multitaskers on media were primarily drawn from colleges and universities, given the observed significant impact of age on media multitasking behavior. As the study indicated that media multitasking behavior increases with age, future researchers may consider diversifying the age groups within their samples to further understand these differences across various life stages and educational levels. It's worth noting that the study design in this research differs in certain aspects from those in existing literature, which may affect the comparability of the results. However, researchers are encouraged to employ a variety of

measurement tools, including interviews and case studies, to deepen the exploration of this topic.

Implications

Based on these findings, it becomes evident that gender-responsive pedagogy can play a crucial role in educational settings to mitigate media multitasking behavior. This behavior has been shown to have detrimental effects on students' academic performance. Strategies to reduce media multitasking may include prohibiting the use of media devices inside classrooms and imposing limitations on media use within educational institutions. Such measures can help minimize this behavior among students.

Moreover, these findings have broader social implications. Implementing awareness programs and promoting practices like the "20-20 rule" (which involves focusing fully on one task without switching to another) can benefit communities by enhancing their quality of life through the control of media multitasking and mind wandering. Individuals can take proactive steps to prevent or reduce undesirable digital behaviors, such as continuously checking social media alerts, by understanding their motivations and being mindful of how frequently and for what purposes they engage in multitasking.

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