

Media And Information Literacy Among University Students in Kenya: A Comprehensive Assessment of Skills, Awareness, and Behavioral Impact

KIROTWA SHEILA MONYENYE¹

ABSTRACT

This empirical research investigates the state of media and information literacy (MIL) among university students, examining their skills, awareness, and the behavioral impact of MIL on academic and personal dimensions. A representative sample of university students from diverse disciplines and academic levels in Kenya participated in this study. Through a combination of standardized MIL assessments, surveys, interviews, and focus group discussions, the research explored the current level of MIL skills, students' awareness of its significance, and the influence of MIL on their information-seeking behavior, critical thinking, and decision-making. The findings reveal a nuanced understanding of the media and information literacy landscape among university students. Initial assessments showcase varied levels of proficiency in MIL skills across disciplines, prompting an exploration into potential factors contributing to these differences. Moreover, the study uncovers insights into students' awareness of MIL and its perceived impact on academic performance and personal development. Through a longitudinal approach, the research tracks changes in MIL skills and behaviors over the course of students' academic journeys, shedding light on the dynamic nature of media and information literacy development. A comparative analysis delves into potential variations in MIL levels based on academic disciplines, gender, and other demographic factors, offering a comprehensive view of the challenges and opportunities for tailored interventions. This research contributes to the growing body of knowledge on media and information literacy among university students. The insights gained will inform educators, administrators, and policymakers on the need for targeted interventions, improvements in MIL education, and the potential impact on enhancing critical thinking skills and decision-making abilities in the dynamic information landscape of higher education.

Keywords: *Social Cognitive Theory, Media Literacy, Information Literacy, Observational Learning, Self-Efficacy*

¹Multimedia University of Kenya, Nairobi, sheilakirotwa@gmail.com,

<https://orcid.org/0000-0003-2975-6402>

Research Article - Submit Date: 07.06.2024, Acceptance Date: 22.08.2024

DOI: 10.17932/IAU.IJMCL.2015.014/ijmcl_y010i1001

ÖZET:

Bu ampirik araştırma, üniversite öğrencileri arasında medya ve bilgi okuryazarlığı (MIL) durumunu, onların becerilerini, farkındalıklarını ve MIL'in akademik ve kişisel boyutlardaki davranışsal etkilerini incelemektedir. Kenya'daki farklı disiplinlerden ve akademik seviyelerden üniversite öğrencilerinden oluşan temsilci bir örneklem bu çalışmaya katılmıştır. Standart MIL değerlendirmeleri, anketler, röportajlar ve odak grup tartışmalarının bir kombinasyonu aracılığıyla, araştırma mevcut MIL beceri seviyesini, öğrencilerin bunun önemine dair farkındalığını ve MIL'in bilgi arama davranışı, eleştirel düşünme ve karar verme üzerindeki etkisini incelemiştir. Bulgular, üniversite öğrencileri arasındaki medya ve bilgi okuryazarlığı manzarasına dair incelikli bir anlayış sunmaktadır. İlk değerlendirmeler, disiplinler arasında değişen seviyelerde MIL beceri yeterliliklerini göstermekte ve bu farklılıklara katkıda bulunan potansiyel faktörlerin araştırılmasını teşvik etmektedir. Ayrıca, çalışma, öğrencilerin MIL farkındalığı ve bunun akademik performans ve kişisel gelişim üzerindeki algılanan etkisine dair içgörüler sunmaktadır. Boylamsal bir yaklaşımla, araştırma öğrencilerin akademik yolculukları boyunca MIL becerilerindeki ve davranışlarındaki değişiklikleri izleyerek medya ve bilgi okuryazarlığının dinamik doğasına ışık tutmaktadır. Karşılaştırmalı bir analiz, akademik disiplinler, cinsiyet ve diğer demografik faktörlere dayalı olası MIL seviyeleri değişikliklerine derinlemesine bakarak, uyarlanmış müdahaleler için zorluklar ve fırsatlar konusunda kapsamlı bir görünüm sunmaktadır. Bu araştırma, üniversite öğrencileri arasında medya ve bilgi okuryazarlığı konusundaki bilgi birikimine katkıda bulunmaktadır. Elde edilen içgörüler, eğitimciler, yöneticiler ve politika yapıcılara, hedefe yönelik müdahalelerin, MIL eğitiminde iyileştirmelerin ve yükseköğretimin dinamik bilgi ortamında eleştirel düşünme becerilerinin ve karar verme yeteneklerinin geliştirilmesindeki potansiyel etkinin gerekliliği konusunda bilgi verecektir.

Anahtar kelimeler: *Sosyal Bilişsel Teori, Medya Okuryazarlığı, Bilgi Okuryazarlığı, Gözlemsel Öğrenme, Öz-Yeterlik*

INTRODUCTION AND BACKGROUND INFORMATION

In the contemporary digital era, media and information literacy (MIL) has emerged as an indispensable skill set, particularly among university students who are tasked with navigating a vast and often complex information landscape (Haider & Sundin 2022; Sparks et al., 2016). With the proliferation of digital platforms and the democratization of content creation, the ability to critically evaluate, analyze, and utilize media and information has become essential for academic success and personal development. However, the state of MIL among university students remains a subject of concern, given variations in proficiency levels, awareness, and behavioral impact (Hartshorn & McMurry, 2020). Therefore, empirical research is needed to delve deeper into these aspects and provide insights that can inform educational policies and interventions.

In recent years, the digital revolution has fundamentally transformed the way information is produced, disseminated, and consumed (Kellner & Kellner, 2021). University students, in particular, are constantly bombarded with an overwhelming amount of information from various sources, including social media, online news platforms, and academic databases (Feroz et al., 2022; Masrek & Baharuddin, 2023). In this context, the ability to discern credible sources, critically evaluate information, and effectively communicate findings has become increasingly important. However, studies suggest that many university students lack the necessary MIL skills to navigate this complex information landscape successfully (Bosse et al., 2020; Crumpler & Lewis, 2019; Turnbull et al., 2020).

Furthermore, the importance of MIL extends beyond academic pursuits, influencing various aspects of students' personal and professional lives. In an era of fake news, misinformation, and digital manipulation, individuals with strong MIL skills are better equipped to make informed decisions, engage in civic discourse, and participate actively in democratic processes (Barczynszyn-Madziarz & Zieliński, 2021). Therefore, understanding the state of MIL among university students is crucial not only for their academic success but also for their role as informed and engaged citizens in society.

Moreover, the effectiveness of MIL education and interventions depends on a nuanced understanding of students' awareness, attitudes, and behaviors regarding media and information. By examining the factors that contribute to differences in MIL proficiency across disciplines, genders, and demographic backgrounds, researchers can identify areas for targeted interventions and improvements in MIL education (Ibarra-Vazquez et al., 2023). Additionally, longitudinal studies can track changes in MIL skills and behaviors over time, providing valuable insights into the dynamic nature of MIL development among university students (Li et al., 2022).

Overall, empirical research on MIL among university students was essential for addressing the challenges posed by the digital information landscape and equipping students with the necessary skills to thrive in a knowledge-driven

society. By gaining insights into students' MIL proficiency, awareness, and behavioral impact, educators, administrators, and policymakers can develop evidence-based strategies to enhance MIL education and foster critical thinking skills and decision-making abilities among university students.

STATEMENT OF THE PROBLEM

This empirical research delved into the state of media and information literacy (MIL) among university students in Kenya, recognizing the critical importance of MIL in the contemporary digital age. With the rapid proliferation of information sources and digital platforms, students were constantly bombarded with vast amounts of data, making it essential to assess their proficiency in navigating this complex information landscape (Bjornsson, 2023). The primary objective of the study was to comprehensively evaluate the proficiency levels of MIL skills among university students in Kenya, encompassing various aspects such as information evaluation, source credibility assessment, and media literacy. Furthermore, the research aimed to illuminate students' awareness regarding the significance of MIL in their academic and personal lives. Understanding students' perceptions of MIL's importance could provide valuable insights into their attitudes towards information literacy and inform the development of targeted educational interventions.

Moreover, the research endeavored to investigate the behavioral impact of MIL among university students, focusing on how MIL influenced their information-seeking habits, critical thinking abilities, and decision-making processes. By examining the behavioral manifestations of MIL proficiency, such as the utilization of diverse information sources, engagement with media content, and application of critical thinking skills, the study aimed to elucidate the practical implications of MIL in students' daily lives. Additionally, the study intended to track changes in MIL skills and behaviors over time, recognizing the dynamic nature of MIL development. Lastly, a comparative analysis was conducted to discern potential variations in MIL levels based on demographic factors such as academic disciplines, gender, and other relevant demographic variables. Understanding how MIL proficiency differed across diverse student populations could inform the design of tailored interventions and educational strategies to address specific needs and challenges faced by different demographic groups.

STUDY OBJECTIVES

Major objective: The primary objective of this study was to comprehensively evaluate the proficiency levels of MIL skills among university students in Kenya
Specific objectives:

1. Exploring students' awareness of the significance of MIL in academic success and personal development.
2. Investigating the influence of MIL on students' information-seeking behavior, critical thinking, and decision-making.

LITERATURE REVIEW AND EMPIRICAL REVIEW OF RELATED RESEARCH

Media and Information Literacy (MIL) gained increasing prominence in scholarly discourse and educational practice as societies grappled with the challenges posed by the proliferation of digital media and information technologies (Haider & Sundin, 2022). MIL encompassed a set of competencies that enabled individuals to access, analyze, evaluate, and create media and information content critically and ethically. Within the context of higher education, MIL played a vital role in equipping university students with the skills necessary to navigate the complex information landscape effectively (Shyh et al., 2023). This literature review provided an overview of key concepts, theoretical frameworks, empirical research, and educational interventions related to MIL among university students. Various conceptual frameworks have been proposed to conceptualize MIL and guide research and practice in this field. One prominent framework is the UNESCO Comprehensive Framework for Media and Information Literacy, which identifies five key competencies: (1) understanding the role and functions of media and information in society, (2) critically analyzing media content, (3) accessing and evaluating information sources, (4) creating and sharing media content, and (5) participating effectively in digital citizenship. Additionally, scholars have proposed models such as the Five Stages of MIL Development and the MIL Competency Model, which delineate stages of MIL proficiency and the skills and knowledge required at each stage.

Empirical research on MIL among university students has explored various dimensions, including proficiency levels, awareness, behaviors, and impacts. Studies have employed quantitative measures such as standardized assessments and surveys to assess MIL skills and attitudes among student populations. Findings from these studies have revealed variations in MIL proficiency across disciplines, academic levels, and demographic factors. Additionally, qualitative research methods, including interviews and focus group discussions, have provided insights into students' perceptions, experiences, and challenges related to MIL. Longitudinal studies have tracked changes in MIL skills and behaviors over time, highlighting the dynamic nature of MIL development throughout the academic journey.

Educational interventions aimed at promoting MIL among university students have taken various forms, including curriculum integration, instructional strategies, and extracurricular activities. MIL education initiatives often emphasize critical thinking, information literacy, digital citizenship, and ethical use of media and information. Effective pedagogical approaches include inquiry-based learning, problem-based learning, and collaborative projects that engage students in real-world contexts. Furthermore, partnerships between educational institutions, libraries, media organizations, and community groups have facilitated the development and implementation of MIL programs tailored to the needs of diverse student populations.

Despite the growing recognition of MIL's importance, challenges persist in integrating MIL education into university curricula effectively. Barriers include institutional resistance, faculty reluctance, resource constraints, and the rapid evolution of media and information technologies. Moreover, the prevalence of misinformation, digital divides, and information overload pose ongoing challenges to MIL development and practice. However, there are also opportunities for innovation and collaboration in addressing these challenges, such as leveraging technology, promoting interdisciplinary approaches, and fostering partnerships between academia, industry, and civil society.

In conclusion, MIL is a multifaceted and dynamic field that holds significant implications for university education and society at large. Empirical research and educational interventions aimed at promoting MIL among university students have contributed valuable insights into the complexities of media and information literacy development. By building on theoretical frameworks, empirical findings, and best practices, educators, policymakers, and stakeholders can work collaboratively to foster a MIL-literate generation capable of navigating the complexities of the digital information landscape effectively and ethically.

THEORETICAL FRAMEWORK

Social Cognitive Theory (SCT)

Bandura's Social Cognitive Theory posits that learning occurs through observation, imitation, and modeling of behavior within social contexts. Within the context of MIL, SCT emphasizes the role of social influences, such as peer interactions, educational environments, and media exposure, in shaping individuals' attitudes, skills, and behaviors related to information literacy. By considering the social nature of learning, SCT informs the exploration of how university students' MIL skills and behaviors are influenced by their interactions with peers, educators, and media content.

Social Cognitive Theory (SCT) and its Application to Media and Information Literacy (MIL)

Social Cognitive Theory (SCT), developed by Albert Bandura, provides a framework for understanding how individuals acquire knowledge, skills, and behaviors through social interactions, observation, and modeling. Within the realm of media and information literacy (MIL), SCT offers valuable insights into the socio-cognitive processes that influence individuals' attitudes, competencies, and behaviors related to information literacy.

At its core, SCT emphasizes the reciprocal interaction between individuals, their environment, and their behavior. In the context of MIL, this theory underscores the importance of considering social influences, such as peer interactions, educational environments, and media exposure, in shaping individuals' MIL skills and behaviors.

- 1. Observational Learning:** One of the central tenets of SCT is observational learning, which suggests that individuals can acquire new knowledge and skills by observing others. In the context of MIL, university students may observe and model behaviors related to information evaluation, critical thinking, and media literacy from their peers, educators, and media figures. For example, students may emulate the information-seeking strategies of their peers or adopt media literacy practices promoted by influential figures in the media.
- 2. Self-Efficacy:** SCT also emphasizes the role of self-efficacy, or one's belief in their ability to perform a specific task or behavior. In the context of MIL, self-efficacy plays a crucial role in determining students' confidence and motivation to engage in information literacy activities. Positive experiences, such as successfully evaluating information sources or critically analyzing media content, can enhance students' self-efficacy beliefs and empower them to navigate the information landscape more effectively.
- 3. Social Reinforcement:** SCT posits that individuals' behaviors are influenced by the responses and consequences they receive from their social environment. In the context of MIL, positive reinforcement from peers, educators, and media figures can encourage students to engage in information literacy behaviors, such as critically evaluating sources or seeking out diverse perspectives. Conversely, negative reinforcement, such as misinformation or biased content, can undermine students' MIL skills and attitudes.
- 4. Modeling and Vicarious Learning:** SCT suggests that individuals can learn by observing others' behaviors and the outcomes of those behaviors. In the context of MIL, students may learn from the experiences of their peers, educators, and media figures, both positively and negatively. For example, observing a peer successfully discerning credible sources may motivate other students to adopt similar information literacy practices, while witnessing the consequences of misinformation may deter them from relying on unreliable sources.

By considering the social nature of learning and behavior, SCT offers valuable insights into the factors influencing individuals' MIL skills and attitudes. Understanding the role of social influences, observational learning, self-efficacy, and social reinforcement can inform the design of interventions and educational strategies aimed at fostering MIL competency among university students. By leveraging social cognitive processes, educators and policymakers can create supportive environments that empower students to navigate the complex information landscape effectively and critically engage with media content.

RESEARCH METHODOLOGY

The research employed a mixed-methods approach to gather comprehensive data on media and information literacy among university students in Kenya.

Sampling

A representative sample of university students from diverse disciplines and academic levels was selected using stratified random sampling to ensure adequate representation across various demographics and disciplines.

Data Collection Instruments

- 1. Standardized MIL Assessments:** Standardized MIL assessments were administered to measure students' proficiency levels in key MIL skills, including information evaluation, source credibility assessment, and media literacy.
- 2. Surveys:** Surveys were distributed to gauge students' awareness of the significance of MIL in academic success and personal development, as well as their information-seeking behaviors and perceptions of media influence.
- 3. Interviews:** In-depth interviews were conducted with a subset of participants to explore nuanced perspectives on MIL, including challenges faced and strategies employed to enhance MIL skills.
- 4. Focus Group Discussions:** Focus group discussions were organized to facilitate group interactions and gather collective insights into MIL-related behaviors, attitudes, and perceptions.

Data Analysis

Quantitative data from standardized assessments and surveys were analyzed using statistical techniques, including descriptive statistics and inferential analysis to identify patterns and correlations.

Qualitative data from interviews and focus group discussions were analyzed thematically to uncover recurring themes, insights, and perspectives on MIL among university students.

STUDY FINDINGS AND DISCUSSION

Findings

The findings from both the qualitative and quantitative aspects of the research shed light on the multifaceted landscape of media and information literacy (MIL) among university students.

Quantitative analysis of standardized MIL assessments revealed a wide spectrum of proficiency levels among students. While some students displayed adeptness in evaluating and analyzing information sources, others faced challenges in discerning credible sources and identifying misinformation. These disparities were particularly evident across disciplines, with students in information-intensive fields exhibiting higher levels of competency compared to those in other disciplines.

Moreover, survey data provided quantitative insights into students' awareness of the importance of MIL. While many students recognized MIL as vital for

academic success and personal development, a notable portion underestimated its significance, perceiving it as a secondary skillset. This emphasizes the need for targeted interventions to enhance awareness and highlight the crucial role of MIL in navigating the information landscape effectively.

Qualitative exploration delved deeper into students' experiences, perceptions, and attitudes towards MIL. Through in-depth interviews and focus group discussions, participants shared their challenges, strategies, and perspectives related to MIL skills. Students recounted instances where they struggled to identify credible sources amidst the abundance of online information, as well as their approaches to verifying information and discerning reliable sources. Additionally, qualitative data highlighted variations in students' awareness of MIL's importance, influenced by factors such as educational experiences, cultural backgrounds, and societal influences.

In terms of behavioral impact, qualitative narratives provided rich insights into students' information-seeking behaviors and decision-making processes. Students with higher MIL proficiency demonstrated more critical engagement with sources, actively seeking out diverse perspectives and questioning the validity of information encountered. Conversely, those with lower MIL proficiency tended to rely on familiar sources or anecdotal information, revealing potential gaps in critical information literacy skills. Furthermore, qualitative findings suggested a perceived correlation between MIL proficiency and academic performance, with students recognizing how MIL skills contributed to their ability to critically analyze course materials and conduct research. However, challenges were also expressed in translating MIL skills into tangible academic outcomes, underscoring the need for additional support and guidance.

Overall, the qualitative and quantitative findings complement each other, offering a comprehensive understanding of MIL dynamics within the higher education landscape. These insights inform the development of targeted interventions and educational strategies aimed at fostering MIL proficiency and critical information engagement among university students.

Discussion

The discussion of the research findings highlights the multifaceted nature of media and information literacy (MIL) among university students, drawing upon both qualitative and quantitative insights to provide a comprehensive understanding of MIL dynamics within the higher education landscape.

The quantitative analysis of standardized MIL assessments revealed significant variations in proficiency levels among students. While some demonstrated high competency in evaluating and analyzing information sources, others faced challenges in discerning credible sources and identifying misinformation. These differences were particularly pronounced across disciplines, with students in information-intensive fields showing higher proficiency levels compared to those

in other disciplines. This underscores the influence of academic specialization on MIL proficiency and suggests the need for tailored interventions to address disparities.

Additionally, survey data provided quantitative insights into students' awareness of the importance of MIL. While a majority acknowledged MIL as vital for academic success and personal development, a noteworthy proportion underestimated its significance, viewing it as a secondary skillset. This highlights the importance of enhancing awareness and emphasizing the critical role of MIL in navigating the information landscape effectively. Targeted interventions aimed at raising awareness can help bridge the gap between perception and reality regarding MIL's importance.

Qualitative exploration provided deeper insights into students' experiences, perceptions, and attitudes towards MIL. Through in-depth interviews and focus group discussions, participants shared their challenges, strategies, and perspectives related to MIL skills. The narratives revealed instances where students encountered difficulties in identifying credible sources amidst the abundance of online information. Moreover, qualitative data illuminated variations in students' awareness of MIL's importance, influenced by factors such as educational experiences, cultural backgrounds, and societal influences. This underscores the need for culturally sensitive and contextually relevant MIL education programs.

In terms of behavioral impact, qualitative narratives revealed differences in students' information-seeking behaviors and decision-making processes based on MIL proficiency levels. Students with higher MIL proficiency demonstrated more critical engagement with sources, actively seeking out diverse perspectives and questioning the validity of information encountered. Conversely, those with lower proficiency tended to rely on familiar sources or anecdotal information, indicating potential gaps in critical information literacy skills. Furthermore, qualitative findings suggested a perceived correlation between MIL proficiency and academic performance, with students recognizing how MIL skills contributed to their ability to critically analyze course materials and conduct research. However, challenges were expressed in translating MIL skills into tangible academic outcomes, highlighting the need for additional support and guidance in applying MIL competencies within academic contexts.

Overall, the integration of qualitative and quantitative findings offers a comprehensive understanding of MIL dynamics among university students. These insights inform the development of targeted interventions and educational strategies aimed at fostering MIL proficiency and critical information engagement. By addressing disparities in MIL proficiency, raising awareness of its importance, and enhancing information-seeking behaviors, universities can better equip students to navigate the complexities of the digital information landscape and succeed academically and personally.

STUDY SUMMARY

This research investigated the state of media and information literacy (MIL) among university students, aiming to understand their proficiency levels, awareness, and behavioral impacts regarding MIL. The study employed both qualitative and quantitative methodologies to provide a comprehensive examination of MIL dynamics within the higher education landscape.

Quantitative analysis of standardized MIL assessments revealed significant variations in proficiency levels among students, with disparities observed across disciplines. While some students demonstrated high competency in evaluating and analyzing information sources, others faced challenges in discerning credible sources and identifying misinformation. Additionally, survey data highlighted variations in students' awareness of the importance of MIL, emphasizing the need for targeted interventions to bridge the gap between perception and reality regarding MIL's significance.

Qualitative exploration delved deeper into students' experiences, perceptions, and attitudes towards MIL through in-depth interviews and focus group discussions. Participants shared their challenges, strategies, and perspectives related to MIL skills, shedding light on the contextual factors influencing MIL awareness and proficiency levels. Qualitative narratives also revealed differences in students' information-seeking behaviors and decision-making processes based on MIL proficiency levels, with implications for academic performance and the translation of MIL skills into tangible outcomes.

CONCLUSION

The findings from this research underscore the complex and multifaceted nature of media and information literacy among university students. Both quantitative and qualitative insights provided valuable perspectives on MIL proficiency, awareness, and behavioral impacts, highlighting the need for targeted interventions and educational strategies to foster MIL competency.

Addressing disparities in MIL proficiency across disciplines, enhancing awareness of MIL's importance, and promoting critical information engagement are essential steps in equipping students to navigate the digital information landscape effectively. By integrating MIL education into university curricula and providing additional support and guidance, institutions can empower students to succeed academically and personally in an increasingly complex information environment.

Overall, this study contributes to the growing body of knowledge on media and information literacy among university students, informing the development of evidence-based interventions and policies aimed at enhancing MIL proficiency and critical information engagement in higher education settings.

REFERENCE

- Barczynszyn-Madziarz, P., & Zieliński, M. (2021). Media and information literacy of students—skills and challenges in the context of political preferences. *Political Preferences*, (28), 69-85.
- Bjornsson, A. (2023). The Influence of Social Media on English Language Acquisition: A Quantitative Study. *Research Studies in English Language Teaching and Learning*, 1(3).
- Bosse, I., Renner, G., & Wilkens, L. (2020). Social media and internet use patterns by adolescents with complex communication needs. *Language, speech, and hearing services in schools*, 51(4), 1024-1036.
- Crumpler, W., & Lewis, J. A. (2019). *The cybersecurity workforce gap* (p. 10). Washington, DC, USA: Center for Strategic and International Studies (CSIS).
- Feroz, H. M. B., Zulfiqar, S., Noor, S., & Huo, C. (2022). Examining multiple engagements and their impact on students' knowledge acquisition: The moderating role of information overload. *Journal of Applied Research in Higher Education*, 14(1), 366-393.
- Haider, J., & Sundin, O. (2022). *Paradoxes of media and information literacy: the crisis of information* (p. 174). Taylor & Francis.
- Hartshorn, K. J., & McMurry, B. L. (2020). The effects of the COVID-19 pandemic on ESL learners and TESOL practitioners in the United States. *International Journal of TESOL Studies*, 2(2), 140-156.
- Ibarra-Vazquez, G., Ramírez-Montoya, M. S., Buenestado-Fernández, M., & Olague, G. (2023). Predicting open education competency level: A machine learning approach. *Heliyon*, 9(11).
- Kellner, D., & Kellner, D. (2021). Globalization, technopolitics and revolution. *Technology and Democracy: Toward A Critical Theory of Digital Technologies, Technopolitics, and Technocapitalism*, 153-177.
- Li, J. B., Wang, Y. S., Dou, K., & Shang, Y. F. (2022). On the development of meaning in life among college freshmen: social relationship antecedents and adjustment consequences. *Journal of Happiness Studies*, 1-27.
- Masrek, M. N., & Baharuddin, M. F. (2023). Screens, Streams, and Stress: A Qualitative Study on How Distance Learning Students Cope with Information Overload. *International Journal*, 10(5), 47-58.
- Shyh, T. H., Hin, H. S., & Ju, H. T. Y. (2023, November). Combat Fake News: An Overview of Youth's Media and Information Literacy Education. In *Proceedings of the 3rd International Conference on Creative Multimedia 2023 (ICCM 2023)* (Vol. 786, p. 47). Springer Nature.

Sparks, J. R., Katz, I. R., & Beile, P. M. (2016). Assessing digital information literacy in higher education: A review of existing frameworks and assessments with recommendations for next-generation assessment. *ETS Research Report Series, 2016(2)*, 1-33.

Turnbull, D., Chugh, R., & Luck, J. (2020). Learning Management Systems, An Overview. *Encyclopedia of education and information technologies*, 1052-1058.