FLEXIBLE LEARNING: ADMINISTRATION AND SUPERVISION STRATEGIES FOR SATISFACTION AND CHALLENGES

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ABSTRACT

This literature review explores the complex landscape of flexible learning modalities tailored to meet the needs of working students. It examines the integration of Adult Learning Theory, Transactional Distance Theory, and Social Cognitive Theory, alongside contextual considerations. Adult Learning Theory emphasizes self-directed learning and real-life experiences, enhancing working students' satisfaction and success in higher education. Transactional Distance Theory illuminates the psychological dynamics between instructors and learners, essential for creating inclusive learning environments. Social Cognitive Theory underscores the role of observational learning, self-efficacy, and motivation in shaping working students' learning journey. The review also highlights contextual factors such as employment nature and work schedules, crucial for understanding and addressing the unique challenges faced by working students. Exploring diverse flexible learning modalities provides insights into opportunities and challenges, requiring collaboration and innovation in their design and implementation. Recommendations include investing in technological infrastructure, providing professional development for educators, and fostering a supportive online community. Ultimately, this holistic approach is essential for maximizing the potential of flexible learning modalities and ensuring the satisfaction and success of working students in higher education.

Keywords: *flexible learning, professional development, ICT integration, contextual, technology*

INTRODUCTION

Flexible learning modalities have gained prominence in higher education as institutions seek to accommodate the diverse needs of students while leveraging advancements in technology. These modalities encompass various approaches, including online courses, hybrid programs, asynchronous learning, and competency-based education, providing students with greater flexibility in how, when, and where they engage with course materials (Bernardo, 2020). The flexibility offered by these modalities is particularly beneficial for working students, who often juggle employment, family responsibilities, and other commitments alongside their academic pursuits (Sebullen, 2023).

The incorporation of contemporary learning concepts and technological advancements have led educators to investigate alternate approaches for providing instruction and information (Onyema & Daniil, 2017; Binkley, et al., 2012). Higher education institutions have adopted flexible learning modalities as a result of this change. In order to increase access to higher education, flexible learning refers to a variety of pedagogical strategies that provide flexibility in the timing, place, and mode of instruction (Vijapur, et al., 2021; Vlaschopoulos & Makri, 2019; Medina, 2018). Terms like blended learning and online or e-learning are frequently used interchangeably. In this context, flexibility may refer to both logistical issues, like the timing, location, and tempo of learning activities, as well as pedagogical issues, such the application of teaching strategies, evaluation, interaction, and instructional media (Huang, et al., 2020).

Additionally, it might involve utilizing a range of technologies that don't restrict learning to the conventional face-to-face format (Rapanta, et al., 2020). The most popular ways or kinds of flexible learning are online and blended learning, which essentially explain how learning information is supplied to students (Castro, 2019; Boelens, Voe & De Wever, 2018). Thus, the transmission of learning information through an online delivery system or application requiring internet connectivity enables students to acquire new skills and knowledge through online learning (Aghajani & Adloo, 2018; O'Doherty, et al., 2018). Both synchronous and asynchronous online learning are possible. In asynchronous online learning, students get learning materials that they may access at any time, whereas in synchronous online learning, students produce and consume learning materials simultaneously (Madathil, et. al., 2017). In contrast, blended learning combines online instruction with in-person meetings between professors and students on a periodic basis (Zhou & Chua, 2016).   Moreover, working students comprise a significant proportion of the college population, contributing to the diversity and dynamism of campus communities (Davis & Finelli, 2017). However, they face distinct challenges that can impact their academic success and overall well-being. Balancing work and academic responsibilities require strong time management skills, discipline, and resilience. Moreover, working students may experience financial stress, fatigue, and feelings of isolation due to their dual roles as employees and students (Kang & Luo, 2020). These challenges underscore the importance of providing support structures and educational opportunities that are responsive to the needs of working students.

Flexible learning involves a shift from a traditional teacher-centered approach to learning into a more student-centered and technology-based approach (Kieran & Anderson, 2019). Learners are more autonomous and are given more control and responsibility over their learning. This allows the learner to follow his/her own pace making learning more personalized (Byrd, 2017). This also encourages learners to be more engaged in the teaching-learning process (Ichim, Dan & Sava, 2017). One of the most important benefits of flexible learning is that it makes education more accessible to learners (Veltsianos & Houlden, 2019; Valtonen, et. al., 2020). This may be employed in circumstances where traditional face-to-face learning is not possible or is limited. Moreover, flexible learning has also been found to promote quality of education received by students (Jackson, 2019; Benade, 2019); and it increases teachers' self-efficacy and competence (Chawinga & Zozie, 2016).

In the study of Zhou and Chen (2021), students are improving their ability to practice social skills and gradually determine their future professional path, all while gaining some academic freedom through flexible learning and by taking part-time jobs. However, exceeding work hours reduces study time and induces fatigue, undermining academic focus. According to Ali (2017) Students with study plans adeptly manage work-study balance. However, in college, students attribute absenteeism and reduced concentration in class to fatigue from part-time employment, achieving top honors remains uncommon. (Wadood, 2018). Significantly, according to Nga (2020), some roles, such as late shifts or sales jobs, pose safety risks. Digital technology enables students to study while working. However, the lack of regulation and oversight may negatively impact academic performance. Additionally, the type of employment undertaken by students can impact their academic performance, with those engaged in full-time work often facing greater challenges than their part-time counterparts (Seaman, Allen, & Seaman, 2018).

Consequently, the integration of flexible learning modalities presents an opportunity to address some of the barriers faced by working students and enhance their educational experiences (Reyes et. al, 2021). By providing greater flexibility in scheduling, course delivery, and engagement opportunities, these modalities can empower working students to pursue their academic goals while accommodating their work and personal responsibilities (Yilmaz, 2017). Furthermore, flexible learning modalities can facilitate personalized learning experiences, allowing students to progress at their own pace and focus on areas of interest or need (Pastor, 2020). Despite the potential benefits of flexible learning modalities, there is a need for empirical research to understand their impact on the academic outcomes of working students (Halverson and Graham, 2019). While existing studies have examined the relationship between employment status and academic performance, few have specifically focused on the experiences of working students in flexible learning environments. Moreover, the effectiveness of flexible learning modalities may vary depending on factors such as student demographics, program structure, and institutional support systems (Hall, 2017).

By conducting a systematic investigation into the experiences of working students in flexible learning modalities, this literature review aims to generate insights that can inform institutional policies, program development, and support services. Specifically, the study seeks to explore the challenges faced by working students, the strategies they employ to balance work and academic responsibilities, and the perceived impact of flexible learning modalities on their academic success and overall well-being. Additionally, the study will examine how factors such as

employment status, course load, and support systems influence the experiences of working students in flexible learning environments.

Overall, this research contributes to the growing body of literature on flexible learning modalities and working students, shedding light on effective practices for supporting the educational aspirations of this diverse and resilient population. The findings of this literature review will be important because may serve as scientific ground for the stakeholders, curriculum planners and designers in curricular programs assessment and evaluation. This literature review also aims to provide information on how the stakeholders help in the conduct of the flexible learning to survive the private schools' plot twist that since there is a free tertiary education act which is Republic Act 10931, otherwise known as the Universal Access to Quality Tertiary Education Act (Bernardo, 2020). Finally, it will be beneficial to the school because it can add to the growing researches regarding the level of learners' learning satisfaction, degree of seriousness of challenges met of learners in the flexible learning modality/ From there, educational planners are encouraged to further conduct researches of similar nature but with broader depth and breadth.

REVIEW OF RELATED LITERATURES

The development of flexible learning modality, brought about by new technologies, computer scientists' contributions to the field of education, and the idea that education is a lifelong process, presents a significant challenge for educational institutions in terms of how to integrate these technologies into teaching and learning experiences as an advantage both for the learners and the school community.

Adult Learning Theory

This literature review delves into the principles of adult learning theory, which Emphasizes self-directed learning and the relevance of learning experiences to real-life situations, we can understand how flexible learning modalities cater to the unique needs and schedules of working students (Dziuban et. al, 2015). Flexible learning modalities, rooted in principles of adult learning theory, significantly enhance the satisfaction of working college students by providing avenues for self-directed learning, immediate application of knowledge to real-life scenarios, accommodation of diverse learning styles, and support for maintaining a healthy work-life balance (Harerimana & Mtshali, 2018). By granting students autonomy over their education, offering relevant learning experiences, adapting to individual preferences, and providing necessary support structures, these modalities empower working students to pursue their academic and professional goals effectively while managing their personal commitments. Overall, flexible learning modalities cater to the unique needs and schedules of working students, ultimately fostering higher levels of satisfaction and success in their college endeavors (Byrd, 2017; Sebullen, 2023 and Blayone, 2018).

Transactional Distance Theory

Understanding the psychological and communication space between instructors and learners in distance education is crucial for optimizing the effectiveness of flexible learning modalities, particularly for working students (Benande, 2019). This theory sheds light on how various modes of flexible learning, such as asynchronous online lectures, interactive discussion forums, virtual office hours, and multimedia resources, can impact the interaction and engagement levels of working students (Al-Furaih, 2020). By recognizing the unique needs and constraints of working students, instructors can tailor their communication strategies and instructional design to foster meaningful interactions and maintain high levels of engagement. For instance, providing regular feedback, facilitating peer collaboration, and incorporating real-world examples into course materials can enhance the relevance and applicability of learning experiences, thereby increasing satisfaction among working students (Castro, 2019). Additionally, utilizing technology-enabled communication tools, such as video conferencing and instant messaging, can bridge the distance between instructors and learners, fostering a sense of connectedness and support in the online learning environment (Geng et. al, 2019). Ultimately, by leveraging insights from this theory, educators can create inclusive and engaging learning environments that cater to the diverse needs of working college students, leading to greater satisfaction and academic success (Zhou and Chua, 2016).

Social Cognitive Theory

According to Bandura's social cognitive theory (1986) as cited by Rapanta et. al (2021), observational learning, self-efficacy, and motivation intricately shape the learning journey, particularly in flexible learning contexts, significantly impacting the satisfaction and overall success of working students. Observational learning suggests that individuals acquire new skills by observing others, allowing working students in flexible learning environments to

benefit from observing peers managing time and online resources, thereby enhancing their confidence and motivation to engage deeply with course materials (Sáiz-Manzanares et. al, 2020). Self-efficacy, the belief in one's ability to accomplish tasks, is crucial; working students who perceive themselves as capable learners are more likely to persist and actively participate, with confidence nurtured through positive feedback and successful experiences in managing workload and mastering content (Tran et. al. 2020).

Moreover, motivation acts as a driving force behind engagement and commitment, particularly for intrinsically motivated working students, while a supportive learning environment further bolsters their motivation (Vijapur et. al, 2021). Considering these principles, the combination of observational learning, self-efficacy, and motivation significantly contributes to working students' satisfaction with flexible learning modalities, reinforced by the perceived relevance of course materials and the adaptability of online formats to their schedules. Leveraging these psychological principles, educators and institutions can effectively enhance working students' satisfaction and success in flexible learning environments (Xie et. al, 2020).

Contextual Factors

Contextual factors, such as the nature of students' employment, their work schedules, and extracurricular commitments, play a crucial role in shaping the satisfaction, challenges, and strategies of working students in flexible learning environments (Kintu, Zhu & Kagambe, 2017). For instance, the type of work students is involved in may vary widely, from part-time jobs to full-time careers, each with its own demands and time constraints. Similarly, their work schedules may fluctuate, making it challenging to allocate consistent time for studying and coursework. Moreover, other commitments outside of academia, such as family responsibilities or community involvement, further add to their time management complexities (Lasfeto, 2020). These contextual factors can influence working students' satisfaction with flexible learning, as they may struggle to balance competing priorities and find time for academic pursuits.

Additionally, challenges such as fatigue from work or feeling overwhelmed by multiple responsibilities can impact their ability to engage effectively with online coursework (Kieran & Anderson, 2019). To navigate these challenges, working students may employ various strategies, such as setting clear boundaries between work and study time, utilizing online resources for flexible learning, seeking support from peers and instructors, and prioritizing tasks based on urgency and importance. By understanding and addressing these contextual factors, educators and institutions can better support the satisfaction and success of working students in flexible learning environments (Jackson, 2019).

Flexible Learning Modalities

Flexible learning modalities encompass various approaches, including online courses, hybrid programs, evening classes, asynchronous learning, and flipped classrooms. Each modality provides distinct levels of flexibility regarding the timing, location, and pace of learning, catering to the diverse needs of working students (Guan & Benavides, 2020). For instance, online courses allow students to access materials and engage in discussions remotely, enabling flexibility around work schedules and geographical constraints. Hybrid programs combine online and in-person components, offering a balance between flexibility and face-to-face interaction (Abdous, 2019). Evening classes accommodate students who work during the day, providing opportunities for learning outside of traditional working hours. Asynchronous learning allows students to access course materials and complete assignments at their own pace, accommodating varying work schedules and personal commitments (Sebullen, 2023).

Student Engagement

This is the degree of involvement, interaction, and enthusiasm that working students exhibit towards their learning activities. It can be influenced by factors such as the design of the learning materials, the quality of instructor-student and peer-to-peer interactions, and the level of support provided (Trans et. al 2020). Significantly, flipped classrooms invert the traditional lecture and homework model, allowing students to engage with instructional materials outside of class time and use class sessions for interactive activities and discussions, providing flexibility in learning approaches (Bernardo, 2020). These diverse modalities present both opportunities and challenges for working students. While they offer flexibility in balancing work and academic responsibilities, they may also pose challenges in terms of time management, access to resources, and maintaining motivation. Working students may employ various strategies to navigate these challenges, such as setting clear goals, establishing routines, seeking support from peers

and instructors, and utilizing time management tools (Sáiz-Manzanares et. al, 2020). By understanding the unique contextual factors and utilizing effective strategies, working students can maximize their satisfaction and success in flexible learning environments.

DISCUSSIONS

The literature provides a deep dive into the intricate landscape of flexible learning modalities, specifically in addressing the needs of working students. It delves into the convergence of several theoretical frameworks, including Adult Learning Theory, Transactional Distance Theory, and Social Cognitive Theory, alongside an examination of contextual factors. Adult Learning Theory illuminates the path towards engaging working students by advocating for self-directed learning and the application of real-life experiences (Arnou et, al 2020). By prioritizing autonomy, relevance, and robust support structures, flexible learning modalities grounded in this theory offer a promising framework for accommodating the diverse schedules and requirements of working students, ultimately fostering their satisfaction and success in higher education (Bayaga et. al, 2021).

Transactional Distance Theory offers invaluable insights into the psychological and communication dynamics between instructors and learners, especially in distance education contexts. By tailoring communication strategies and instructional design to facilitate meaningful interactions and engagement, educators can create inclusive and supportive learning environments conducive to the achievement of working students (Boelens et. al, 2018). This theory underscores the importance of bridging the psychological gap between instructors and learners, which is particularly crucial in the remote learning environments often encountered by working students. Furthermore, the exploration of Social Cognitive Theory sheds light on the role of observational learning, self-efficacy, and motivation in shaping the learning journey of working students. Educators can leverage these psychological principles to cultivate a supportive learning environment that bolsters students' confidence, persistence, and intrinsic motivation. By nurturing these attributes, educators can enhance working students' satisfaction and success in flexible learning modalities, ensuring they feel empowered to navigate the challenges of balancing work, education, and personal commitments effectively (Lafesto, 2020).

In essence, the integration of these theoretical frameworks underscores the importance of a multifaceted approach to designing and implementing flexible learning environments. By incorporating insights from Adult Learning Theory, Transactional Distance Theory, and Social Cognitive Theory, educators can create dynamic, engaging, and supportive learning experiences tailored to the unique needs of working students. This holistic approach is essential for maximizing the potential of flexible learning modalities and ensuring the satisfaction and success of working students in higher education (Albrahim, 2020).

Moreover, the consideration of contextual factors, such as employment nature, work schedules, and extracurricular commitments, highlights the importance of understanding the unique challenges and strategies employed by working students in balancing multiple responsibilities. By addressing these contextual factors, educators and institutions can better support the satisfaction and success of working students in flexible learning environments (Elliston, 2020). The discussion of flexible learning modalities, including online courses, hybrid programs, evening classes, and asynchronous learning, offers a nuanced understanding of the diverse approaches available to meet the needs of working students (Sebullen, 2023). While these modalities present opportunities for flexibility, they also pose challenges in terms of time management and motivation, necessitating effective strategies and support systems to ensure student engagement and success.

The implications and impact of flexible learning modalities on stakeholders within the school community are multifaceted and require deeper exploration to understand their significance fully. For administrators, the shift towards flexible learning entails strategic planning and resource allocation (Dziuban et. al, 2015). They must invest in robust technological infrastructure, ensuring that both educators and students have access to reliable devices and high-speed internet. Additionally, administrators need to develop policies and guidelines that support flexible learning while ensuring data privacy and security. Financial considerations also come into play, as funding may be needed for professional development programs to train educators in effective online teaching methodologies and for acquiring digital learning resources. The successful implementation of flexible learning can enhance the school's reputation and competitiveness, attracting students seeking innovative educational experiences and contributing to long-term sustainability (Pastor, 2020).

Educators face a significant transition as they adapt their teaching practices to fit flexible learning modalities. This adaptation involves more than just delivering content online; educators must redesign their curriculum to engage students in virtual environments effectively. They need to explore new instructional strategies, such as asynchronous discussions, multimedia presentations, and virtual simulations, to cater to diverse learning styles and preferences. However, educators may encounter challenges in maintaining student engagement and fostering meaningful interactions in remote settings. They must find creative ways to build a sense of community and collaboration among students, leveraging technology to facilitate peer-to-peer learning and teamwork (Sebullen, 2023).

For students, the adoption of flexible learning modalities offers newfound freedom and flexibility in pursuing their education. They have the opportunity to customize their learning experiences, selecting courses and study schedules that align with their personal and professional commitments. Flexible learning enables students to overcome geographical barriers, allowing them to access high-quality education from anywhere in the world. However, students may face challenges in managing their time effectively and staying motivated in self-directed learning environments. They may also experience feelings of isolation and disconnection from their peers and educators, highlighting the importance of fostering a supportive online community and providing access to mental health resources (Huang et. al, 2020).

Parents play a crucial role in supporting their children's transition to flexible learning. They need to create conducive learning environments at home, free from distractions and equipped with the necessary technology and resources. Parents must also offer emotional support and encouragement, helping their children navigate the challenges of remote learning and develop effective time management and self-regulation skills (Benade, 2019). Moreover, parents play an advocacy role, voicing their concerns and needs to school administrators and educators to ensure that flexible learning modalities meet the diverse needs of students and families. Lastly, the adoption of flexible learning modalities has far-reaching implications for stakeholders within the school community (Halverson & Graham, 2019). Administrators, educators, students, and parents must collaborate closely to address the challenges and capitalize on the opportunities presented by flexible learning. By working together, schools can create inclusive, engaging, and effective learning environments that prepare students for success in the digital age (Castro, 2019).

School stakeholders can adhere to the recommendations outlined in the literature review by implementing strategic initiatives and fostering a culture of collaboration and innovation within the school community. Administrators play a crucial role in allocating resources and developing policies that support flexible learning modalities. They can invest in robust technological infrastructure, provide professional development opportunities for educators, and establish guidelines for data privacy and security. Administrators should also prioritize creating inclusive and supportive learning environments that cater to the diverse needs of working students (Garcia, 2017).

Educators can adhere to these recommendations by adapting their teaching practices to fit flexible learning modalities. This may involve redesigning curriculum to engage students in virtual environments effectively, exploring new instructional strategies, and leveraging technology to facilitate peer-to-peer learning and teamwork (Geng et. al, 2019). Educators should also prioritize building a sense of community and collaboration among students, fostering a supportive online learning environment. Working students themselves can adhere to these recommendations by actively engaging in their learning, managing their time effectively, and seeking support from peers and educators when needed. They can also advocate for their needs and concerns to school administrators and educators, ensuring that flexible learning modalities meet their unique requirements (Hall, 2017).

Hence, parents also play a crucial role in supporting their children's transition to flexible learning. They can create conducive learning environments at home, provide emotional support and encouragement, and advocate for their children's needs within the school community (Jackson, 2019). Nonetheless, adherence to these recommendations requires a collaborative effort among all school stakeholders, including administrators, educators, working students, and parents. By working together and prioritizing the needs of working students, schools can create inclusive, engaging, and effective learning environments that foster the satisfaction and success of all students (Aghajani & Adloo, 2018).

Overall, the review of related literature provides valuable insights into the development of flexible learning modalities and the challenges and opportunities they present for working students. By integrating theoretical frameworks, considering contextual factors, and exploring diverse modalities, educators and institutions can

effectively design and implement flexible learning environments that cater to the unique needs and schedules of working students, ultimately fostering their satisfaction and success in higher education (Medina, 2018).

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the literature review offers a comprehensive examination of the challenges and prospects associated with the development of flexible learning modalities, particularly in accommodating the requirements of working students. Through the integration of various theoretical frameworks such as Adult Learning Theory, Transactional Distance Theory, and Social Cognitive Theory, alongside considerations of contextual factors, a nuanced understanding of effective flexible learning environments emerges. Adult Learning Theory underscores the importance of autonomy, relevance, and support structures in engaging working students, enhancing their satisfaction and success in higher education. Transactional Distance Theory sheds light on the psychological and communication dynamics between instructors and learners, guiding the creation of inclusive and supportive learning environments essential for working students' success. Social Cognitive Theory emphasizes the role of observational learning, self-efficacy, and motivation in shaping the learning journey, offering insights into fostering a supportive learning environment conducive to working students' satisfaction and success.

Moreover, the consideration of contextual factors highlights the unique challenges and strategies employed by working students in balancing multiple responsibilities. By addressing these factors, educators and institutions can better support the satisfaction and success of working students in flexible learning environments. The discussion of diverse flexible learning modalities further enriches our understanding, offering insights into the opportunities and challenges they present for both students and educators. Ultimately, the review underscores the importance of collaboration and innovation in designing and implementing flexible learning environments that cater to the diverse needs and schedules of working students. By leveraging theoretical frameworks, addressing contextual factors, and exploring diverse modalities, educators and institutions can create inclusive, engaging, and effective learning environments that empower working students to achieve their academic and professional goals. This holistic approach is essential for fostering the satisfaction and success of working students in higher education and ensuring their preparedness for success in the digital age.

REFERENCES

[1] Allen, I. E., & Seaman, J. (2017). Digital learning compass: Distance education enrollment report 2017. Babson Survey Research Group.

[2] Abdous, M. (2019). Influence of satisfaction and preparedness on online students' feelings of anxiety. The Internet and Higher Education, 41, 34–44. doi: 10.1016/j.iheduc.2019.01.001

[3] Abdul-Hamid, S. and Hamzah. R. (2020). How Ready Were Malaysian Undergraduates for the Sudden Online Classes During the COVID-19 Pandemic? Advances in Social Science, Education and Humanities Research, volume 536

[4] Aghajani, M., & Adloo, M. (2018). The Effect of Online Cooperative Learning on Students' Writing Skills and Attitudes through Telegram Application. International Journal of Instruction, 11(3), 433-448.

[5] Albrahim, F. A. (2020). Online teaching skills and competencies. Turkish Online Journal of Educational TechnologyTOJET, 19(1), 9-20.

[6] Al-Furaih, S. A., & Al-Awidi, H. M. (2020). Teachers' change readiness for the adoption of smartphone technology: Personal concerns and technological competency. Technology, Knowledge and Learning, 25(2), 409-432.

[7] Arnou, Charlotte & Cornelis, Gustaaf & Heymans, Pieter & Howard, Sarah & Leemans, Geert & Tondeur, Jo & Vaesen, Joost & Van Den Driessche, Maarten & Valcke, Martin & Elen, Jan. (2020). COVID-19 and educational spaces: Creating a powerful and social inclusive learning environment at home.

[8] Bayaga, A., Bossé, M. J., Sevier, J., Fountain, C., Williams, D., Bosire, S., & Blignaut, S. (2021). University Faculty Opinions of Preservice Teachers' Technological Readiness. Canadian Journal of Science, Mathematics and Technology Education, 21(1), 44-64.

[9] Benade, L. (2019). Flexible learning spaces: Inclusive by design? New Zealand Journal of Educational Studies, 54(1), 53-68.

[10] Blayone, T. (2018). Reexamining digital-learning readiness in higher education: Positioning digital competencies as key factors and a profile application as a readiness tool. International Journal on E-Learning, 17(4), 425-451.

[11] Boelens, R., Voet, M., & De Wever, B. (2018). The design of blended learning in response to student diversity in higher education: Instructors' views and use of differentiated instruction in blended learning. Computers & Education, 120, 197-212.

[12] Byrd, N. (2017). Technology-based professional development for teaching and learning in K-12 classrooms.

[13] Castro, R. (2019). Blended learning in higher education: Trends and capabilities. Education and Information Technologies, 24(4), 2523-2546.

[14] D. Hidayati and W. A. Saputra, Implementation of Online Learning during the Covid-19 Epidemic in Indonesia: Assessment of Higher Education Students' Use and Implementation of Online Learning Technology. Universal Journal of Educational Research, 8(8) (2020) 4514-4519.

[15] Dziuban, C., Moskal, P., Thompson, J., Kramer, L., DeCantis, G. and Hermsdorfer, A. 2015. Student Satisfaction with Online Learning: Is It a Psychological Contract? Online Learning, 19(2). Doi: http://doi.org/10.24059/olj.v19i2.496

[16] Elliston, Z. A. (2020). A Position Paper on the Implementation of Learning Technology Tools: Uncovering Faculty Perceptions. International Journal on Studies in Education, 2(1), 58-65.

[17] Davis, J. R., & Finelli, C. J. (2017). The impact of employment during school on college student graduation. Journal of Student Financial Aid, 47(3), 3.

[18] Garcia, M. B. (2017). E-learning technology adoption in the Philippines: an investigation of factors affecting filipino college students' acceptance of learning management systems. The International Journal of E-Learning and Educational Technologies in the Digital Media, 3(3), 118-130.

[19] Geng, S., Law, K. M., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. International Journal of Educational Technology in Higher Education, 16(1), 1-22.

[20] Guan, A. G. R., & Benavides, N. G. (2020). Parent-Teacher-Learner Collaboration in Facilitating Modular Instruction.

[21] Hall, T. (2017). Architecting the 'third teacher': Solid foundations for the participatory and principled design of schools and (built) learning environments. European Journal of Education, 52(3), 318-326.

[22] Halverson, L. R., & Graham, C. R. (2019). Learner engagement in blended learning environments: A conceptual framework. Online Learning, 23(2), 145-178.

[23] Harerimana, A., & Mtshali, N. G. (2018). Implementing e-learning in resource-constrained nursing education institutions in Rwanda. Research and Reviews: Journal of Nursing and Health Sciences, 4, 1-14.

[24] Huang, R. H., Liu, D. J., Tlili, A., Yang, J. F., & Wang, H. H. (2020). Handbook on facilitating flexible learning during educational disruption: The Chinese experience in maintaining undisrupted learning in COVID-19 Outbreak. Beijing: Smart Learning Institute of Beijing Normal University.

[25] Ichim, M., Dan, D., & SAVA, C. (2017). INTERACTIVE TOOLS USED IN BLENDED INSTRUCTION TO TEACH THE BLOW ROOM LINE PROCESSES. eLearning & Software for Education, 3.

[26] Jackson, E. A. (2019). Use of WhatsApp for Flexible Learning: Its Effectiveness in Supporting Teaching and Learning in

[27] Kang, M., & Luo, W. (2020). Working students and academic performance in college: Does employment type matter? The Journal of Higher Education, 91(4), 625-652.

[28] Kieran, L., & Anderson, C. (2019). Connecting universal design for learning with culturally responsive teaching. Education and Urban Society, 51(9), 1202-1216.

[29] Kim, H. J., Hong, A. J., & Song, H. D. (2019). The roles of academic engagement and digital readiness in students' achievements in university e-learning environments. International Journal of Educational Technology in Higher Education, 16(1), 1-18.

[30] Kim, H. J., Hong, A. J., & Song, H. D. (2019). The roles of academic engagement and digital readiness in students' achievements in university e-learning environments. International Journal of Educational Technology in Higher Education, 16(1), 1-18.

[31] Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. International Journal of Educational Technology in Higher Education, 14(1), 1-20.

[32] Lasfeto, D. (2020). The relationship between self-directed learning and students' social interaction in online learning environment. Journal of e-Learning and Knowledge Society, 16(2), 34-41.

[33] Lawrence, K. C. & Nkoane, M. M. (2020) 'Transforming higher education spaces: analysis of educational expectation factors among higher school learners in KwaDlangezwa', International Journal of Education and Practice (IJEP), 8(3), pp. 547–556. doi: 10.18488/journal.61.2020.83.547.556

[34] Lawrence, K.C. and Fakuade, O.V. (2021). Parental involvement, learning participation and online learning commitment of adolescent learners during the COVID-19 lockdown. Research in Learning Technology Vol. 29

[35] Madathil, K. C., Frady, K., Hartley, R., Bertrand, J., Alfred, M., & Gramopadhye, A. (2017). An empirical study investigating the effectiveness of integrating virtual reality-based case studies into an online asynchronous learning environment. Computers in Education Journal, 8(3), 1-10.

[36] Medina, L. C. (2018). Blended learning: Deficits and prospects in higher education. Australasian Journal of Educational Technology, 34(1).

[37] Nortvig, A. M., Petersen, A. K., & Balle, S. H. (2018). A Literature Review of the Factors Influencing E-Learning and Blended Learning in Relation to Learning Outcome, Student Satisfaction and Engagement. Electronic Journal of Elearning, 16(1), pp46-55.

[38] O'Doherty, D., Dromey, M., Lougheed, J., Hannigan, A., Last, J., & McGrath, D. (2018). Barriers and solutions to online learning in medical education–an integrative review. BMC medical education, 18(1), 1-11.

[39] Onyema, O. G., & Daniil, P. (2017). Educating the 21st century learners: are educators using appropriate learning models for honing skills in the mobile age?. Journal of Entrepreneurship Education, 20(2), 1-15.

[40] Papadakis, S., Kalogiannakis, M., Sifaki, E., & Vidakis, N. (2017). Access moodle using smart mobile phones. A case study in a Greek University. In Interactivity, game creation, design, learning, and innovation (pp. 376-385). Springer, Cham.

[41] Pastor, C. K. L. (2020). Sentiment analysis on synchronous online delivery of instruction due to extreme community quarantine in the Philippines caused by COVID-19 pandemic. Asian Journal of Multidisciplinary Studies, 3(1), 1-6.

[42] Sierra Leone's Higher Education Institutions. Jackson, Emerson Abraham (2019): Use of Whatsapp for flexible learning: Its effectiveness in supporting teaching and learning in Sierra Leone's Higher Education Institutions.

[43] SageSubmissions. Preprint. DOI, 10. James-Springer, C. D. (2016). Building a tool for determining e-learning readiness in organizations: A design and development study (Doctoral dissertation, Virginia Tech).

[44] Sebullen, Michael T. (2023). Navigating the Turbulent Terrain: Gauging Student Experiences with Blended Teaching-Learning Modalities. Innovations. ResearchGate

[45] Sebullen, Michael T. (2023). Feeling The Flip: Investigating Senior High School Students' Satisfaction with Blended Learning. Iconic Research And Engineering Journals. ReasearchGate

[46] Seaman, J., Allen, I. E., & Seaman, J. (2018). Grade increase: Tracking distance education in the United States. Babson Survey Research Group.