

Integrating AI into Malaysian School Counselling: A Study on Opportunities, Challenges, and Ethics

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Abstract

The use of artificial intelligence (AI) in school counseling has the potential to revolutionize the way counseling services are delivered through the provision of personalized support and data-driven decision-making. This paper explores the potential opportunities, challenges, and ethical considerations of using AI in Malaysian school counseling. The paper also highlights several ethical considerations that must be taken into account when integrating AI into school counseling practices, such as protecting students' privacy and avoiding bias in AI-generated data. Overall, this paper provides a comprehensive exploration on the potential of using AI in Malaysian school counseling and highlights the opportunities, challenges, and ethical considerations that are applicable when implementing the technology into school counseling.

Keywords: Artificial intelligence; School counseling; Ethical consideration

1. Introduction

Guidance and counseling services for primary and secondary school students are crucial in putting the philosophy of Malaysian education into practice. School guidance and counseling teachers play a vital role in ensuring positive emotional and psychological well-being, which has a significant impact on students' academic achievement (Johari and Amat, 2019). The four main concerns that need to be implemented by school counselors are emphasizing students' personality development and progress, discipline enhancement, career education, and psychosocial and mental well-being.

The practice of online learning has become an important medium of instruction across schools and higher education institutions in Malaysia during the COVID-19 lockdown period (Jafar et al., 2022). Despite several challenges experienced by students (Annamalai, 2021), existing evidence suggests that online learning can have a positive impact on improving students' learning with rooms for continuous improvement by the instructors (Selvanathan et al., 2020). However, the practice of school guidance and counseling services during the lockdown presents a unique challenge.

Malaysian students' aversion to school counseling services (Chen and Kok, 2017) is rooted in the stigma surrounding mental health (Pheng et al., 2019). However, the escalating number of mental health-related issues such as anxiety (Ganaprakasam and Selvaraja, 2020) as well as depression and suicidal thoughts among adolescents during the school closure (Mir et al., 2023) have increased the demand for school guidance and counseling services

(Alexander et al., 2022). Nevertheless, the shortage of school counselors with limited interactions amidst school closure during the COVID-19 lockdown reflects the urgent need for discovering an alternative tool to substitute for their absence. Furthermore, limited empirical evidence exists concerning the challenges experienced by school guidance and counseling teachers in Malaysia during the nationwide school closure, thus bounding the issue as anecdotal. Based on the authors' personal experience, the COVID-19 lockdown nationwide has led to total confusion and uncertainty regarding the role of school guidance and counseling teachers - this has been further stagnated by the scarcity of proper professional training and opportunities on digital counseling practices as well as the lack of psychosocial support activities and resources for students. Perhaps, it stands as a stark reminder to the critical need of instilling the element of advanced technology in the development of school counseling to prepare for and respond to the needs of school students in future pandemics.

Therefore, it is important for school guidance and counseling teachers to instill the element of innovation and experimentation in designing and evaluating the advancement of technology for the greater benefit of school students. This is where artificial intelligence (AI) comes in.

AI technology refers to the ability of non-biological mechanisms to accomplish various assigned goals (Fulmer, 2019). The National Artificial Intelligence Roadmap initiated by the Ministry of Science, Technology, and Innovation reflects the government's commitment toward the development of AI in Malaysia (MOSTI, 2021). Since its first emergence, the technology has expanded to various sectors. For instance, AI is currently used in healthcare to transform the patient care service by maximizing the usage of the Axial AI system, to detect abnormalities in patients' medical images, which often remain undetected during manual imaging inspection (Ling Chan, 2021), and the invention of world's first AI-enabled stethoscope system to accurately detect the presence of heart or lung diseases. Furthermore, AI has been utilized to improve medical administrative tasks such as managing patients' clinical documentation, medical reports, and claims processing, which significantly enhances the capability of medical experts to accelerate and improve diagnosis, early intervention, and medical efficiency.

Apart from healthcare, AI has been a topic of growing interest among scholars, practitioners, and therapists in the field of counseling psychology. The technology is gradually transforming counseling psychology services by enabling therapists to identify factors that trigger one's vulnerability toward mental illness and assist in delivering a series of effective treatments and preventions (Grové, 2021). Significantly, the rising usage of therapy chatbots to deal with innumerable demands for counseling sessions reflects the critical role of AI in today's world. Although some therapists are excited about the possibilities, others are still skeptical regarding the capability of machines to understand and respond accurately toward the whole spectrum of human emotions, particularly when it involves children and adolescents. Therefore, the current article explores the potential opportunities, challenges, and ethical considerations of using AI in Malaysian school counseling.

2. Enhancing Existing School Counselling Services with AI-Powered Tools

Experts across the globe have suggested seizing the significant opportunity provided by AI in various domains including students' psychological well-being. There are many ways to maximize the guidance and counseling service in schools through the implementation of AI-powered tools. Listed below are several advantages of implementing AI-powered tools in school guidance and counseling service.

Personalized Support

The implementation of AI-powered tools in the school setting can deliver personalized support for students based on their unique needs and goals. Such support is necessary for them to improve their behavioral, academic, and emotional problems. Due to the number of extra workloads not related to counseling in school (Johari and Amat, 2019), guidance and counseling teachers often struggle to conduct counseling sessions for students in need. Therefore, AI-powered counseling tools such as mental health chatbots or "talking bots" (Han et al., 2022) can be utilized to communicate with the students, develop customized intervention plans based on their mental health issues and symptoms, and track their progress toward improvements while flagging those at risk of relapse. Furthermore, the technology can potentially improve and ease daily routines associated with school counseling such as managing counseling appointments with students and sending counseling reminders. AI-powered counseling tools can also be used to track students with chronic absenteeism and automatically inform their attendance status to the families as opposed to the traditional routines of sending warning letters, phone calls, and home visits. This may greatly reduce the workload of school guidance and counseling teachers and improve the school-student-family communication.

Following the high percentage of smartphone usage and internet penetration among children and adolescents in Malaysia, the utilization of AI applications such as chatbots can be beneficial by tailoring it to students' specific needs. However, serious consideration is required to ensure that access to such service remains equitable for school students regardless of their geographical location. Therefore, policymakers should work closely with school counselors to identify the most pressing issues faced by students and develop effective strategies to address these issues through digital means.

Accessibility

Many believe that the rising number of social issues, academic stress, mental health abnormalities, and fear of social stigma among youths and adolescents prompts significant difficulty and hesitation for students to communicate their problems and stress level with others. Such issue demands for unique solutions, like using the AI technology to effectively minimize the ongoing social and emotional issues among students. For instance, chatbotscan stand as an alternative avenue for students to freely share any stressful situations that they experience at the convenience of their own time and place. This not only highlights the potential of AI-powered tools to increase students' mental health and provide effective coping strategies but also extends the provision of guidance and counseling services for students after school hours.

Early Intervention

The use of AI-powered tools for early intervention in school counseling has the potential to improve students' mental health by identifying those at risk and providing timely interventions. It can also help overcome the barriers to access traditional counseling services, making mental health support more accessible to all students. Past research reported on the successful utilization of AI for the early identification and treatment of children with speech delay, which is more accurate, timely, and less time-consuming than traditional methods (Crowson et al., 2013).

3. Addressing Challenges Faced by Malaysian Students With AI-Powered Counselling

AI-powered counseling is an emerging form of mental health support that utilizes machine learning algorithms and natural language processing to provide guidance and feedback to individuals seeking assistance. It is important for counseling providers to be aware of these challenges and work to address them in order to provide effective and ethical counseling services. This subtopic explores the challenges of using AI-powered counseling tools within the mental health support landscape.

Stigma Around Mental Health

The stigma associated with mental health is a significant challenge that can impact the effectiveness of AI-powered counseling. This is especially true in cultures where mental illness is highly stigmatized, such as Malaysia, where individuals may feel embarrassed or ashamed to seek help for mental health issues (Ganesan and Ng, 2017). The use of AI-powered counseling may exacerbate this stigma as some individuals may feel that seeking help from a machine is a sign of weakness or a lack of personal strength (Wong et al., 2021). Additionally, some individuals may worry that seeking help from AI-powered counseling tools will lead to a negative perception from others as it may be seen as a less legitimate form of mental health support (Wong et al., 2021).

Limited Access to Counseling Service

The feasibility of AI-powered counseling can also be challenged by the issue of limited access. According to Mazlan et al. (2020), this is primarily attributed to the shortage of mental health professionals who are qualified to provide counseling services. The issue also owes to the limited availability of internet connectivity and access to technology in certain locations, particularly in rural and less developed areas (Ezeah and Opara, 2019). Additionally, some individuals may not have the necessary skills or knowledge to operate the technology effectively, subsequently limiting their access to AI-powered counseling services (Ezeah and Opara, 2019).

Shortage of Qualified Counselors

Recent statistics suggest that Malaysia has a shortage of mental health professionals, including counselors (Mazlan et al., 2020). Consequently, the scarce availability of qualified counselors halts the effort to develop and implement AI-powered counseling tools, hence limiting the public's access to effective mental health support. Researchers believe that excellent counseling requires qualified counselors who are highly specialized and skilled to effectively assess and diagnose mental health conditions, as well as the ability to develop and implement effective treatment plans (Buckley et al., 2019). Therefore, the shortage of qualified mental health professionals in Malaysia may impose significant challenges to develop effective AI-powered counseling tools that can achieve the excellent counseling requirements.

Lack of Data and Evidence

Despite the increasing interest in the use of AI-powered tools for school counseling purposes, there is a limited amount of research available to support its effectiveness (Mokhtar et al., 2021). Hence, it is difficult for counseling providers to assess the efficacy of AI-powered counseling tools and to construct evidence-based practices. Furthermore, developing effective AI-powered counseling tools requires a deep understanding of the factors contributing to its success as well as the ability to evaluate its efficacy in real-world settings (Buckley et al., 2019). Without such data, it is almost impossible to determine whether AI-powered counseling tools are indeed effective and whether it provides sufficient mental health support. Therefore, it is important for counseling providers to prioritize on research and invest in the development of evidence-based practices in order to address this challenge.

4. Ethical Considerations of Using AI for School Counseling in Malaysia

While the potential of AI toward the school counseling landscape in Malaysia remains open for further discussion, the technology is expected to receive growing attention and implementation in years to come. Therefore, significant attention must be placed onto ethical considerations affiliated with the use of AI in school counseling practices to protect the interest of all stakeholders and relevant parties. As these ethical concerns may vary depending on different situations and contexts, the present discussion is focused on the aspect of AI as intervention, inclusivity, and data security.

AI as Intervention, not Replacement

In any educational context, researchers believe that technology should be incorporated as a tool that enhances knowledge delivery and students' comprehension; it should never replace the instructors' role as subject-matter experts (Raja and Nagasubramani, 2018; Hamidi et al., 2011). Similar notion applies to AI where it should be introduced in school counseling as an intervention that can improve the efficacy of counseling practices without denying the counselors' role as moderators. In other words, the provision of counseling

remains as the counselors' responsibility; AI can be used as an intervention that helps with the execution and delivery of counseling practices. Like other "human vs. technology" instances, there are aspects in school counseling that only humans (i.e., counselors) can deliver, and vice versa. Instead of arguing on the superiority between the two, the real question should focus on how AI-powered tools can be best utilized in school counseling to improve its efficacy – this question renders for more extensive empirical research and typology so that counselors can make informed decisions on which AI-powered tools that best suit their counseling needs.

Inclusivity of AI-Powered Counselling Tools

Inclusivity has been one of the major concerns in education (Krutka, 2019) and it extends to the use of AI in school counseling. The Malaysian educational landscape comprises students of various abilities and backgrounds. It is important for their school counseling needs to be equally presented – this is a vital aspect that must be observed by AI-powered counseling tools, where it should be designed with students' varied abilities and cultural/social backgrounds in mind. This means that the tools should be sensitive to students with different learning competencies to avoid perpetuating biases, while having the capability to recognize and respond appropriately to those from different cultures and backgrounds. Additionally, AI-powered counseling tools should be made accessible for students with physical disabilities for them to be equally benefited from school counseling.

Data Security and Privacy

Data security is a pertinent concern when it comes to using AI in school counseling as it involves collecting and storing sensitive information like students' mental health, well-being, and personal issues (Renz et al., 2020). Some AI tools used in educational contexts even track the users (i.e., students), especially those that are installed on personal devices (Reiss, 2021). Disregarding the importance of data security will lead to the misuse or abuse of sensitive information, which can result in undesirable consequences particularly in relation to their privacy (Murphy, 2019). Therefore, it is important for counselors to obtain written consent from students or their parents/guardians prior to using any AI-powered tools in their counseling sessions. They should also be transparent about what kinds of data that will be collected and how it will be used to ensure transparency and build trust. Additionally, all sensitive and personal data should be stored in a secured and password-protected database to prevent unauthorized access.

5. Conclusion and Recommendation for Future Study

In conclusion, the use of artificial intelligence (AI) within the school counseling landscape in Malaysia offers numerous potentials and opportunities, but it also comes with significant challenges and ethical considerations. AI-powered counseling services can increase the accessibility, efficiency, and accuracy of mental health support for students; yet it necessitates careful consideration on issues such as privacy, transparency, bias, informed consent, and human oversight. As Malaysia continues to advance in its usage of AI-powered

counseling services, it is crucial for schools and counselors to prioritize on the ethical considerations and ensure that the technology is used responsibly and effectively. Since verbal, non-verbal (Del Giacco et al., 2020), and facial (Porges, 2022) human interactions stand as crucial elements in therapy relationship, there is a need for school counselors to understand and maintain the balance between the usage of machine learning and human-to-human interaction. In line with that, the AI and education policy must ensure that school counselors are equipped with the necessary values and skills to improve students' socio-emotional well-being. Further research is also needed to comprehend the effectiveness of AI-powered counseling across different cultures and linguistic contexts. Following the prominence of evidence-based practice in the counseling industry, future research should address the problems associated with AI-powered counseling services to determine the quality of practices. More importantly, appropriate ethical guidelines are warranted for the best practices of AI-powered counselling in school settings. This aligns with the need for more educators with in-depth knowledge and understanding of the AI technology, which will enable them to adapt and effectively apply the technology in maximizing the impact of school counseling.

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