

VIRTUAL COUNSELING: EMBRACING VR TECHNOLOGY TO SUPPORT STUDENTS' PERSONAL AND SOCIAL DEVELOPMENT

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ABSTRACT

Innovation in virtual reality (VR) technology offers promising solutions in the field of counseling. The use of VR in counseling sessions can create a safe, comfortable, and stigma-free environment for students. Many students feel reluctant or uncomfortable to engage in face-to-face counseling sessions, especially if they have sensitive or private issues, to fill this gap by systematically exploring the application of virtual counseling using VR technology has an impact on students' personal and social development. This study will use an experimental design. The research design of One Group Pretest-Posttest Design, the results of the One-Sample Test obtained a pretest t-value of 20.270, a posttest t-value of 21.172 and a significant value of 0.000, indicating a significant difference between Personal Development pretest and posttest in the class using VIRTUAL COUNSELING and a pretest t-value of 10.506, a posttest t-value of 22.936 and a significant value of 0.000, indicating a significant difference between Social Skills before and after VIRTUAL COUNSELING Overall, the results of this study indicate that virtual counseling using VR technology has great potential to support students' personal and social development comprehensively. And can help students develop communication, cooperation, and empathy skills, in a complex social environment

keywords : virtual counselling, personal development, social development



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INTRODUCTION

Students' personal and social development is an important aspect of education, but often faces challenges in traditional counseling practices. Many students feel reluctant or uncomfortable to engage in face-to-face counseling sessions, especially if they have sensitive or private issues (PH et al., 2022). This can hinder the school's efforts to facilitate optimal student development..

The implementation of the 21st century guidance and counseling program now has different characteristics from the previous century. The development of information technology in the 21st century provides a new color for guidance and counseling with the emergence of application media in the process of implementing guidance and counseling services in schools. Some forms of application media used are video conference, google meet, video call group, zoom, google form, and other technology-based application media (Harlina, 2020; Malelak, 2022; Noviyanti, 2020)

Innovation in virtual reality (VR) technology offers promising solutions in the field of counseling. The use of VR in counseling sessions can create a safe, comfortable, and stigma-free environment

for students (Jerald, 2017). Through VR, students can participate in counseling sessions more openly and freely explore their problems without feeling threatened. (Parsons & Rizzo, 2008). Additionally, VR also allows counselors to design virtual scenarios that suit students' individual needs and challenges.(Endriani et al., 2020)

Several preliminary studies have shown the potential for using VR in counseling to improve self-esteem, social skills, and resilience in students. (Aas et al., 2010; Valmaggia et al., 2016). However, comprehensive and structured research on the effectiveness of VR-based virtual counseling in supporting students' personal and social development is still limited (Ã & Rizzo, 2019). More empirical evidence is needed to fully understand how VR technology can be utilized in counseling practice and its implications for student well-being. This study aims to fill this gap by systematically exploring the implementation of virtual counseling using VR technology and its impact on students' personal and social development. The findings of this study can provide valuable insights for education and counseling practitioners in improving guidance and counseling services in schools through the adoption of technological innovations (Jerald, 2017).

With the increasing need for more effective and affordable counseling services, this research becomes increasingly important and relevant. The results of this study are expected to encourage the acceleration of the development and implementation of VR-based virtual counseling in schools, so that it can contribute significantly to supporting students' personal and social development.

Theoretical review

Virtual Counseling

we need to understand and conclude that some online counseling is another effort that can be done by consultants virtually or via the internet. Media in today's industrial era is increasingly diverse, present and easily accessible from smartphones, including mobile phones, the internet, computers and even social media. All of these media help consultants and clients have access between consultants and clients in one place in the face or not in the face. Online counseling as a step towards the implementation of technical guidance and consulting services expects ethics to be applied to advice and guidance both in implementation before the age of 4.0. Becoming a professional online consultant for services, depending on the needs and needs of the 4.0 era of innovation

Virtual counseling, which utilizes virtual reality (VR) technology, has shown significant potential in supporting students' personal and social development. Several studies have explored the benefits of using VR in school counseling practices.A study by(Parsons & Rizzo, 2008) found that virtual counseling can help students with social anxiety and certain phobias. Through VR, students can practice dealing with difficult situations in a safe and controlled environment, thereby increasing their confidence and interaction skills (Valmaggia et al., 2016). This is especially beneficial for students who have difficulty socializing or have emotional problems that hinder their social development.

Furthermore, research (Meyerbro & Emmelkamp, 2010) shows that virtual counseling can also improve students' self-esteem and resilience. A virtual environment designed to suit students' needs allows them to explore personal issues safely and openly, without shame or fear of stigma. This encourages students to be more actively involved in the counseling process and committed to overcoming the challenges they face. (Dubey et al., 2020).

In addition, virtual counseling can also increase the efficiency and accessibility of guidance and counseling services in schools. With VR, counselors can reach more students virtually, thereby reducing geographical barriers and enabling more affordable counseling services (Jerald, 2017). This is especially important for schools in remote areas or those lacking counseling resources..

Virtual counseling using Virtual Reality (VR) technology has emerged as a promising innovation in supporting students' personal and social development. According to research conducted by Freeman et al. (2018), the use of VR in counseling allows students to experience challenging social situations in a safe and controlled environment. This helps students develop effective social skills and coping strategies without the risk of negative consequences in the real world..

In terms of personal development, VR provides a unique platform for self-exploration and identity development. Research by (Wilson et al., 2015) showed that students who participated in VR counseling sessions experienced significant improvements in self-awareness, emotional regulation, and decision-making abilities. The virtual environment allows students to try on different roles and perspectives, which contributes to the formation of a more positive and flexible self-concept.

Meanwhile, in the context of social development, VR technology facilitates the learning of interpersonal skills in an innovative way. A longitudinal study conducted by (Wen et al., 2020) revealed that students who participated in a VR counseling program showed improvements in empathy, assertive communication, and conflict resolution skills. The virtual environment provides a safe space to practice social interactions, especially for students who experience social anxiety or difficulties in interpersonal relationships.

Lebih lanjut, (Hutson, 2022) found that VR counseling can help students overcome various psychological issues that affect their development, such as social phobia, performance anxiety, and low self-esteem. Through exposure therapy in a virtual environment, students can gradually face and overcome their fears, which in turn increases their self-confidence and social competence in real situations.

From a neurological perspective, the study conducted by (Park & Kim, 2022) showed that immersive experiences in VR can trigger positive changes in brain activity associated with social learning and emotion regulation. The study revealed that regular exposure to social scenarios in VR can strengthen neural pathways involved in social processing and emotional decision-making, supporting the development of better social-emotional skills in students. However, the effectiveness of VR counseling in supporting students' personal and social development also depends on various contextual factors. According to (Fields et al., 2023), The success of VR interventions is influenced by the quality of the technology used, the counselor's competence in integrating VR into counseling practice, and the students' readiness to engage with this technology. Therefore, it is important to consider these aspects in implementing VR counseling programs in schools..

However, while early research shows promising results, more comprehensive studies are needed to fully understand the potential and challenges of implementing virtual counseling in school settings. Further research is needed to explore aspects such as student acceptance, the role of counselors, integration of VR into the curriculum, and the long-term impact on overall student development. (Parsons & Rizzo, 2008)

Personal Development

Student personal development is a multidimensional process that involves identity formation, self-esteem enhancement, healthy emotional regulation, and responsible decision-making skills. According to Erikson (1968), the stage of personal development in adolescence (which is generally experienced by high school students) is the development of a healthy ego identity, namely the ability to understand oneself as a whole and consistently.

One important aspect of personal development is the formation of a positive self-concept. Research by (Santrock, 2014) showed that students with high self-esteem tend to have better learning motivation, stronger interpersonal skills, and better psychological well-being. School counselors can play an important role in facilitating this process through interventions that encourage students to recognize and appreciate their strengths and potential.

In addition, personal development also includes students' ability to manage emotions in a healthy way. According to (Sheppes et al., 2016), Adolescents who are skilled in emotion regulation tend to have better adjustment, avoid behavioral problems, and can build more positive social relationships. Through counseling, students can learn adaptive coping strategies to deal with negative emotions and express their feelings in constructive ways. In the context of counseling, students' personal development is one of the main focuses for counselors in supporting the holistic well-being and growth of individuals. According to Erikson (1968), personal development includes the formation of identity, self-esteem, emotion regulation, and healthy decision-making skills. Counselors play an important role in facilitating this process in students

One important aspect of personal development is the formation of identity.. (Santrock, 2018) emphasizes that counselors can help students explore and strengthen their self-concept through activities and discussions that encourage self-awareness. By understanding personal strengths, weaknesses, interests, and values, students can develop a clearer and more integrated identity. In addition, counselors can also play a role in increasing students' self-esteem. According to (Behrani, 2016), Counseling interventions that focus on strengthening abilities, recognizing achievements, and emotional support can effectively increase students' self-acceptance and self-confidence. This is important because low self-esteem can hinder students' personal and social development..

In terms of emotional regulation, counselors can help students develop skills to manage their feelings in a healthy way. In accordance with the view (Sheppes et al., 2016), Counselors can teach coping strategies, such as cognitive reframing and relaxation, to help students deal with negative emotions and respond to situations more adaptively..

In addition, counselors can also support the development of decision-making skills in students. As explained by (2015)(Prasetya et al., 2022), ounselors can help students explore alternatives, weigh consequences, and make decisions that align with their personal goals and values. This is important for increasing students' autonomy and sense of control over their lives.

Student Social Skills

(Ulah et al., 2020) The social development experienced by children at this time is increasingly widespread. Children begin to learn the values and norms that apply in the surrounding community. Children's social development includes four aspects, namely understanding themselves, relationships with peers, relationships with family, and school (Hurlock, 2001). KThese four aspects must develop in balance in individual children. Another thing that helps optimize a child's social development is the achievement of developmental tasks at each stage of the child's age. If one of the stages of development is missed, it will affect the child's development. Problems that will arise when a child's social development is not optimal during school include the child growing up as an individualist, tending to be withdrawn, and even at risk of bullying

The social development of children in late childhood, called school age, has a very important meaning and is related to the tasks of child development. However, not all children achieve optimal social development in their field. A study on the improvement of psychosocial development of school-age children from 78.1% increased to 94.55%. It is recommended that schools work together with parents of students to create a monitoring program for the growth and development of school-age children in an effort to stimulate so that children's psychosocial development can be achieved in accordance with their growth and development(Malfasari et al., 2020)

Improvements are still needed to ensure optimal social development at school age. One of the consequences of suboptimal child development is the emergence of antisocial behavior. This antisocial behavior is characterized by excessive negative attitudes, aggression, and dominant behavior that is detrimental to oneself and the environment. Another possible impact is that children are unable to integrate into society and feel accepted, which causes unhappiness in themselves.(Assingkily & Hardiyat, 2019).

Methodology

This study will use a quantitative approach with an experimental design. The experiment used in this study is Preexperimental Design (nondesign) or an impure experiment, The design used is OneGroup Pretest-Posttest Design. In this design there is a pretest, before being given treatment. Thus the results of the treatment can be known more accurately, because it can compare the conditions before being given treatment. Participants will consist of two groups, namely the experimental group that receives virtual counseling based on VR technology and the control group that receives traditional counseling. The sample will be randomly selected from high school students who need help for personal and social development.(Creswell, 2014)

Data collection will be conducted through questionnaires and psychological tests that measure related variables, such as self-esteem, social skills, and psychological resilience. Data will be collected before and after the counseling intervention to determine the effectiveness of using VR technology. Data analysis will use t-tests and analysis of variance to compare differences between the experimental and control groups. In addition, interviews will also be conducted to gain a deeper understanding of students' experiences during the virtual counseling process..(Arikunto, 2011)

Research Results

Table: 1 One-Sample Test of Personal Development

One-Sample Test						
Test Value = 0						
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pre	20,270	24	,000	28,640	25,72	31,56
Pos	21,172	24	,000	34,400	31,05	37,75

Based on the table above, it can be seen that the results of the One-Sample Test obtained a pre-test t-value of 20.270, a post-test t-value of 21.172 and a significant value of 0.000, indicating a significant difference between the Personal Development pre-test and post-test in the class using VIRTUAL COUNSELING.

Table: 2 One-Sample Test of Students' Social Skills

One-Sample Test						
Test Value = 0						
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pre	10,506	24	,000	19,680	15,81	23,55
Pos	22,936	24	,000	30,600	27,85	33,35

Based on the table above, it can be seen that the results of the One-Sample Test obtained a pre-test t-count value of 10,506, a post-test t-count value of 22.936 and a significant value of 0.000, indicating a significant difference between the Social Abilities of Students in the pre-test and post-test classes using VIRTUAL COUNSELING.

Discussion

Personal Development

Research findings suggest that the use of virtual reality (VR) technology in counseling can have a positive impact on an individual's personal development. A study published in the *Journal of Technology in Counseling* revealed several key benefits of a VR-based virtual counseling approach (Smith et al., 2021). The use of VR in counseling sessions can increase client engagement and sense of presence. The interactive virtual environment allows clients to feel more "there" and emotionally connected during the counseling process, compared to conventional counseling formats via video calls or text chats (Liao et al., 2019). This encourages clients to be more open and actively participate in the session.

VR-based virtual counseling has been shown to help clients more effectively manage and express their emotions. Research shows that a safe and controlled virtual environment facilitates the development of emotion regulation skills in clients (Park & Hafner, 2017). Clients can safely explore and practice dealing with difficult emotions.

Furthermore, VR technology also allows clients to gain different perspectives and try new roles in a virtual environment. This can help clients broaden their horizons, develop empathy, and gain a deeper understanding of themselves and others (Felnhofer et al., 2014). Thus, VR-based virtual counseling can encourage significant self-transformation in clients

According to a study published in the *Journal of Technology in Counseling*, virtual counseling utilizing VR technology has been shown to have a positive impact on individual personal development (Smith et al., 2021). Here are some important points found: first The use of VR technology in counseling sessions allows clients to feel more "present" and emotionally involved compared to conventional counseling via video calls or text chats. This encourages clients to be more open and actively participate in the counseling process (Liao et al., 2019). Second VR-based virtual counseling can help clients to more effectively manage and express their emotions. A safe and controlled virtual environment facilitates the development of skills in recognizing and regulating emotions (Park & Hafner, 2017). The third VR technology allows clients to gain different perspectives and try new roles in a virtual environment. This can help clients to broaden their horizons, develop empathy, and gain a deeper understanding of themselves and others (Felnhofer et al., 2014).

Overall, this study suggests that virtual counseling utilizing VR technology has the potential to effectively support clients' personal development. While further research is needed, this approach offers many opportunities to empower clients and facilitate significant self-transformation.

Social development

The social development of each child is different and is influenced by the surrounding environment (Ahmadi & Sholeh, 2005). As the child gets older, the child's social development should also be more mature or

optimal. However, in the field, cases related to the less than optimal social development of students such as difficulty adapting, withdrawing, and even bullying are still found. The results of the assessment and observation carried out by the counselee during the service process are described as follows. ARP counselees experienced a change from the previous score of 76 to 83. The change shown by ARP counselees was 8.4%. ARP counselees became members of the Santri Security Team, a kind of OSIS at SD Islam Sari Bumi. ARP is a little withdrawn, but he has a fairly high level of self-confidence. ARP often responds to questions asked by the counselor, in addition, in several games he offers himself to be the leader of the game group. AJT counselees experienced a change from the previous score of 71 to 88. The change shown by AJT counselees was 19.3%. AJT's client is a shy child when he first meets someone, but when he gets to know someone better, AJT is a cheerful child. In the first and second meetings, AJT did not seem active, but in the third and subsequent meetings, AJT was quite

Recent research suggests that the use of virtual reality (VR) technology in counseling can provide significant benefits to students' social development. A study published in the Journal of School Counseling revealed several positive impacts of a VR-based virtual counseling approach (Nguyen et al., 2020). The results of the study proved that virtual counseling with VR can improve students' interpersonal communication skills. The interactive virtual environment allows students to practice interacting and communicating with others in a safe setting (Du et al., 2018). This helps students develop better active listening, empathy, and self-expression skills. Furthermore, the results of the study (Cheng et al., 2019) showed that VR-based virtual counseling can facilitate the development of collaboration and conflict resolution skills in students. Counseling sessions can be designed to position students in situations that require collaboration and negotiation. This experience helps students learn to manage differences, build consensus, and resolve problems constructively.

In addition, virtual counseling with VR can also support increased empathy and understanding of social perspectives in students (Park & Kim, 2022). VR technology allows students to "live" the perspective of others virtually. This experience can help students develop sensitivity, tolerance, and appreciation for diversity. Furthermore, a study conducted by (Cho & Kim, 2024) showed that virtual counseling based on VR is effective in addressing social problems faced by students, such as bullying, adjustment problems, or difficulties interacting. A safe and controlled virtual environment allows students to practice social skills and overcome obstacles without risk. (Mensah et al., 2013)

Overall, the results of this study indicate that virtual counseling using VR technology has great potential to support students' comprehensive social development. This approach can help students develop communication, cooperation, empathy, and social skills needed to succeed in complex social environments.

Conclusion

Overall, the results of this study indicate that virtual counseling using VR technology has great potential to support students' comprehensive social development. This approach can help students develop communication, cooperation, empathy, and social skills needed to succeed in students' personal and social development in complex social environments

Conclusion

With this VIRTUAL COUNSELING method, educators will help parents raise virtuous children to face the new millennium. Children are equipped not only with the knowledge and skills needed for PERSONAL AND SOCIAL DEVELOPMENT, but also with the values, attitudes and prerequisites needed for social cohesion and integration, as well as national development..

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