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Original Research

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Increasing religious tolerance levels among youth with Our Moderate Game app: Is it effective?



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Scan this QR code with your smart phone or mobile device to read online. Youths in Indonesia have different backgrounds, including religion, tradition and social environment, but there are similarities in games. This study aims to analyse the effectiveness of Our Moderate Game (OMG) app use and changes in mindset among youths regarding understanding religious tolerance. This study used mixed methods. The data were collected using questionnaires, observations and interviews. The OMG app effectively improved youth religious tolerance with an average religious tolerance score in the control class of 51.46. In the experimental category, the average religious tolerance score was 74.56. Based on gender, the level of religious tolerance in male youths had a higher score (75.08) than female youths (74.04). Based on religion, meanwhile, Muslim youths had a higher level of religious tolerance than other religious youths, with 81.10.

Contribution: The OMG app can help young people, communities and governments overcome the rise of social, religious and even intolerant, extreme societies.

Keywords: Cross-culture communication; Our Moderate Game app; religious; tolerance; youths.

Introduction

The digital age tends to increase intolerance among youths. The practice of discrimination is often carried out by political groups (Asadu, Diara & Asogwa 2020). Political interests exploit opposing doctrines over individuals, encouraging intolerance in the name of religion and its social environment (Watson 2019). In addition, cultural barriers can also lead to prejudice, including immigrant groups and religious beliefs. The group's activities often lead to patterns of discrimination and tolerance related to the level of well-being (Gumiandari et al. 2022). However, it is different from the practice of discrimination that occurs among young people and the practice of tolerance in an ethnic context and is faced with the interests of nationalism (Cvetkovska, Verkuyten & Adelman 2020; Santos et al. 2022). In terms of the activities of the youth, financial support is often a problem, since access is limited to meet their needs in self-development (Litt et al. 2020; Muttamba et al. 2021; Quarshie, Waterman & Home 2020); This is due to one of the dependencies of mobile phones for their social networks in daily activities. Meanwhile, on the one hand, the effectiveness of mobile phones can be used by certain groups to encourage activities and respond in group interactions (Tuti et al. 2019). On the other hand, parents have limitations in control and communication (Kapetanovic et al. 2020). Digital media is widely mastered and used for information sharing, selfcontrol and self-performance for a wider social network (Litt et al. 2020; Muttamba et al. 2021; Parker et al. 2021). Through digital media, youths tend to have a strong desire and confidence to solve their problems with future challenges (Lan & Wang 2020; Parker et al. 2021).

One example of digital media is a gaming application that is easy to find on mobile phones. Digital media is an alternative when offline methods cannot be used. The tendency to give rewards or points to app game users can increase the intensity. However, increases can cause psychological problems because they consume a relatively long time. However, users who experience gaming addiction, likened to drug addiction, often distort compulsive behaviors, and can lead to harmful attitudes and behaviors for themselves and others (Grubbs, Kraus & Perry 2019; Wong & Cheung 2020). Addiction to mobile phones and social media for young people is manifested by spending time on them. New platforms are always offered and easily accessible under any circumstances, an influential factor as well (Edney et al. 2017; Entradas et al. 2020; Jee, Khan & Nazneen 2021). Internet addiction is caused by reducing tension and increasing refreshment (Xin et al. 2021). The consequences of social media addiction leads to decreased morale, low social sensitivity and psychology (Jee et al. 2021). The need to understand Internet-based technology and its effect on health communication is critical (Tayebi et al. 2019), as deployment

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through the Our Moderate Game (OMG) app makes it easy for users to still be able to play at home. This game application facilitates the delivery of message goals and can provide feedback on achievements (Simmich et al. 2021; Riboli et al. 2022; Thai, Bang & Li 2021). Disseminating information through interactive game applications can share ideas and experiences (Al-Dmour et al. 2020). Gamification of such applications can help spread messages to the public more broadly and efficiently (Edney et al. 2017; Pilăr et al. 2019). Therefore, technical guidance helps strengthen attitudes and positions as a form of service (Aniteye & Mayhew 2019; Entradas et al. 2020). In addition, game app–based physical activity interventions that incorporate gamification have the potential to reach a large number of users at a relatively low cost (Pearce et al. 2020).

Religious tolerance is often associated with forgiveness and mutual respect (Krok & Zarzycka 2021; Sadowski 2021). Certain spiritual understandings also give birth to particular religious identities and practices (Shin 2020; Zeng, Peng & Wu 2021). However, spreading the knowledge of religious tolerance offline during this time tends to be problematic, and obstacles may be experienced (Pajarianto, Pribadi & Sari 2022). In addition, the lack of reviewing the source of authentic document literature as the primary reference can be a crutch for extreme attitudes and intolerance (Ahmad et al. 2021; Ferreira-Valente et al. 2019; Mattes 2020; Morrow 2021). In general, gaming applications are an escape to improve psychiatric stability. They could introduce ideas and self-awareness (Blasi et al. 2019; Kawabe et al. 2021; Lan & Wang 2020) and reduce inner stress, past turmoil, low intelligence and low cost (Canale et al. 2019; Liu, Wang & Sun 2018; Lucchi et al. 2019). While many users of game apps ignore the personal relationship of using technology with others, they also neglect social networks (Jee et al. 2021).

The application of strengthening religious tolerance offline is less massive. There are different orientations of offline media use for Christians, Buddhists and Muslims about support for and attachment to spiritual practices (Litt et al. 2020; Vala & Huang 2019). Unlimited theological importance to religious believers as their ideological duty and responsibility for its spread throughout the global community. (Pace 2020); in particular, Islam has the concept of jihad for religious missions, oriented to struggle in life (Mostfa 2021). In principle, all religions have doctrines to establish a harmonious balance. Christianity has love and Buddhism emphasises compassion (Zeng et al. 2021). However, the offline range strategy is admittedly minimal. Meanwhile, social media is considered more comfortable providing information to others (Zhu et al. 2019). The cyber community works outside of online and offline media (Akmaliah 2020). In reality, the situation of religious leaders is less skilled and adapts quickly in a youth environment. Similarly, the interpretation of the textual message of the holy scriptures carried out by religious figures does not refer to the source of authority (Mostfa 2021). Because of this, it has implications for incompetence, a tendency to blame others and intolerance to different views (Caldeira & Da Silveira 2021; Chakim 2022; Cvetkovska et al. 2020). In this crucial situation, religious institutions must function and

mediate moderately (Katrin 2020; Pace 2020). Therefore, game application–based training is required to build interaction, have fun and integrate knowledge and skills (Jouan & Hallot 2020; Thai, Bang & Li 2021). Games equipped with music, images and messages will be familiar and appeal to their users' emotions (Athanasopoulos et al. 2021).

Solid religious beliefs sometimes cause problems of prejudice in society (Brandenberger et al. 2019). Offline spiritual tolerance learning system technologies or activities carried out so far have not been effective in helping achieve increased religious moderation. Less effectively, religious tolerance activities among young people during this time, such as workshops, tutorials, seminars and discussions, need creative and innovative approaches to improve learning processes, and outcomes in real contexts are needed (Jamilah 2021). Repeating the material can increase self-understanding (Cevasco et al. 2021). Therefore, the solution to prevent increasing intolerance among youth is to make rapid changes in the OMG application's engaging content and design. Therefore, this research has been conducted to offer solutions for understanding and accepting online OMG applications.

Methods

Experiment design

This type of research was qualitative and quantitative, a combination often referred to as mixed methods. Quantitative and qualitative data were collected under different conditions and used together. Mixed methods were included in the following procedures: collecting, analysing and mixing research using quantitative and qualitative methods in the research process (Creswell 2003). This type of quantitative research tests the effectiveness of OMG app users against the mutual tolerance attitudes between the control group and the experimenter. This type of qualitative research used interview departments to explore and to examine the contents of religious tolerance.

Population and sample

In this case, the researchers used *purposive sampling* techniques and took 100 adolescents in Banyumas Regency. The number of such samples is determined by the Slovin formula:

Information:

- *n* = Sample size or number of respondents
- *N* = Population size

E = The percentage of sampling error rigour leeway that can still be tolerated;

E = 0.1.

- N = 878
- E = 10%

With the calculation of the number of N (sample) = 89.77. Next rounded to 100.

The sample criteria were as follows: participants to be aged 9–18 years, domiciled in Banyumas Regency, high school students and owning an Android phone. In addition,

10 young men were made participants. Capital letter codes A, B, C and D were used to differentiate participants in the interview text.

Variables

There were two types of variables: independent and dependent. Independent variables included gender, religion, control groups and interventions. The dependent group showed religious tolerance.

Measures

Participants answered questions about names, domiciles, religious backgrounds, gender, attitudes about mutual tolerance and the culture in Indonesia. Some youth OMG apps are designed to be played quickly. 'He can play the OMG app easily and have fun. The application is very suitable for use for young people's games'(B). Unless otherwise stated, all responses were given on a 7-point Likert-type scale (1 = strongly disagree; 7 = strongly agree). Participants' ages ranged from 16 to 18 years.

Questions about tolerance could be understood, felt and responded to directly by participants. In the observation, there were two steps: Firstly, the following previous research on the use of single games and applications to measure the tolerance perceived by users as subjects. Secondly, data collection was conducted by observation interview, and the results were interpreted. Researchers made research questionnaires based on several aspects of religious tolerance, namely:

- peace (care, fearlessness and love);
- respect for differences and individuals (mutual respect for each other, respect for others and respect for oneself);
- awareness (respect for the kindness of others, open, repressive, comfort in life and comfort with others).

Data collection was carried out with the results of observations and interviews based on some of these aspects, so as to complement them.

The questionnaire was created with a Likert-model scale with a value range. Data collection techniques were carried

out using questionnaires. The box was made with the Likertmodel scale with a value range of 1–5. The statement validity test was a valid value of 0.240–0.569. It showed the reliability of 25 question items in the instrument with a Cronbach's alpha statistic of 0.861.

Research tools and materials

Researchers used the OMG app, interview guidelines, observation sheets and questionnaire sheets as the main instruments in this study.

Data analysis strategy

In this research, the primary purpose was to examine the critical role of religion between traditional media usage and the OMG app. Based on this purpose, we firstly reported the summary statistics of samples. We presented the distribution of religions in this research. Secondly, we explored the role of religious tolerance between not using the OMG app and the OMG app. On this basis, we shared offline and further compared the effectiveness of OMG applications. Coefficients, standard errors and significance levels impact the use of OMG applications. This study used Stata 15.1 and macro processes for the Social Science Statistics Package (SPSS) for analysing data.

Result

Our Moderate Game app usage response

There is a level of knowledge about the tolerance of young people in their school environment, after playing the OMG app. The app's content included games and narratives of religious moderation. The application effective response was obtained through interviews of 10 participants after trying the OMG application. In this case, interviews were conducted to find out how the OMG app is used by youths, among others.

The use of the OMG application attracts young people because its design is similar to cultural adventure games that exist throughout Indonesia. It also comes with moving image music to evoke power and fun. 'The advent of the OMG app made it interested in playing that game. There are additional



FIGURE 1: The practice of harmony of worship side by side with all adherents of different religions.

features of power, knowledge, and more joy playing this game' (A). Especially plus adventure images throughout Indonesia, the game application provides an overview of the harmonization relationship between cultural differences and adherents of various religions in Indonesia.

The easy of use of the OMG application can increase interest and desire among young people. The message about tolerance is easy to capture and understand. 'The OMG app's design is easy to play. He can play the OMG app. Perfect for young people. OMG app can effectively learn lessons on tolerance' (B).

The influence of the OMG application is based on message exploration so that it can be understood quickly. 'I learned religious tolerance from the OMG app, so I became aware of religious tolerance' (C).

Increase understanding, attitudes and practices regarding tolerance for young people as an entry point to build social interactions from different communities that have different backgrounds whether cultural, religious or other interests:

'[*O*]ur Moderate Game app is a model of Indonesian cultural adventure. I learned Indonesian tolerance and culture from the OMG app. Learn what about tolerance? And its benefits as social beings coexist with various religions, ethnicities, and social classes. Indonesian tolerance and culture from OMG application'(D).

Effectiveness of Our Moderate Game app on youths' religious tolerance level

In this study, youths who were given treatment and not given treatment were equivalent to 50 youths. However, in the experimental group the use of OMG applications was effective, when compared to the control group. Furthermore, the data on the effectiveness of OMG application can be seen in Figure 1.

Effectiveness of Our Moderate Game app on youths' religious control level

In the study, 25 youths in the control group were not given treatment, while 25 youths in the experimental group were given treatment in the form of the OMG application. An overview of the use of OMG applications relating to the level of religious tolerance in the experimental and control groups, can be seen in Table 3.

Effectiveness of Our Moderate Game app on youths' religious tolerance level based on gender

In this study, 25 youths in the control group were not given treatment, while 25 youths in the experimental group were given treatment in the form of OMG. An overview of the level of religious tolerance before and after playing the OMG application for the control group and the experimental group can be seen in Table 4.

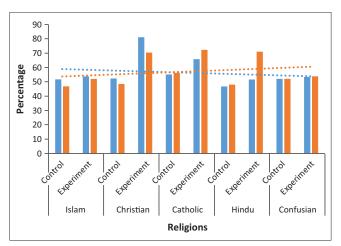
Effectiveness of Our Moderate Game app on youths' religious tolerance level based on religion

In the study, youths in the control group did not get treatment, while youths in the experimental group were given treatment in the form of the OMG app. An overview of the level of religious tolerance before and after playing the OMG app for the control group and the experimental group can be seen in Figure 2.

Discussion

Based on the results of the study showed, the application of OMG is effectively used to increase tolerance which includes a combination of five religious and cultural adventures, spread throughout Indonesia. Through collaborative play, real life and virtual events preceded sociocultural studies of religious tolerance. The experience of young people who are fully involved in the exploration of game play can evoke fun and interesting situations based on mastery of technology (Entradas et al. 2020). 'There are additional features of power, knowledge, and more fun playing this game' (A); they can play according to the OMG app's game menu, as in the images. Young people can also combine prior interests and knowledge about religious tolerance, as well as knowledge of adventure situations (Al-Dmour et al. 2020). 'OMG application content can effectively provide lessons on tolerance' (B, C), and synergistically through the process of gaming applications and the environment as a realm of practice. In this regard, young people can play a role in building messages of tolerance in a happy, attractive, and imaginative way and can encourage the growth of tolerance of people of different religions. This research is believed to create positive experiences to introduce young people's emotions about subjects and collaborative emotions based on digital media (Athanasopoulos et al. 2021; Caldeira & Da Silveira 2021; Cvetkovska et al. 2020).

Based on previous research and our research experiments, young people played the OMG app to be the subject of a study of how real-life events of religious tolerance with the digital world can be concluded. In some parts of the OMG app's gaming experience, young people also use the game app as an instrument to explore their ideas about the real world and each other's virtual worlds. Meanwhile, attractive interaction with the OMG app can foster imaginative



Source: Results of group statistical analysis.

FIGURE 2: The tolerance levels of the five religions are based on control and experimental groups.

impressions and introduce the knowledge of religious tolerance. From these observations, further research formulations need to develop more exciting games.

The three confirmed hypotheses in the sample were that, firstly, p = 0.000 was accepted and that the OMG app effectively increased religious tolerance among youths. Secondly, the result is *p*-value (male = 0.001, female = 0.030) the conclusion is accepted. Thus, the OMG app is effective for improving religious tolerance among youths. Thirdly, *p*-value (Muslim = 0.003, Christian = 0.005, Catholic = 0.015, Hindu = 0.025 and Confucian = 0.003), the conclusion was accepted. Muslim youths have a higher religious tolerance level than teenagers of other faiths.

Consistent with Table 1, Table 2 and Table 3, the youth group treated with the OMG application was highly influential. With the ease of use and unlimited reach of users, the content of the OMG application's messaging becomes one of the determining factors of its effectiveness. Some youth OMG apps are designed to play quickly. 'He can play the OMG app easily and it is fun. The application is very suitable for use for young people's games'(B). This finding is supported by the ease of access and low cost of online application systems (Lucchi et al. 2019; Tuti et al. 2019).

In contrast to previous research, gaming apps emphasise comfort and psychological sensitivity (Xin et al. 2021). Basic

TABLE 1: Characteristics of participants.

Participants	Age	Gender	Religion	Date	Code	School or community
ATT	17	Male	Muslim	07 September 2021	A	SMA 4
ARQ	18	Male	Muslim	07 September 2021	А	SMA 4
AAN	19	Female	Christian	07 September 2021	В	SMA 2
SSN	18	Female	Christian	08 September 2021	В	SMA 2
SAL	17	Female	Hindu	08 September 2021	В	SMA 2
NKD	19	Female	Hindu	10 September 2021	С	Community
TSR	18	Female	Catholic	10 September 2021	С	Community
NRS	18	Male	Catholic	10 September 2021	D	Community
APPS	18	Male	Confucian	10 September 2021	D	Community
SM	18	Male	Confucian	10 September 2021	D	Community

Source: Participant data from the Identity Card.

TABLE 2: The test results showed a difference between the tolerance scores of the control group and the experiment.

Group	N	Before	After	р
		Mean ± SD	Mean ± SD	
Experiment	50	55.48 ± 12.03	74.56 ± 11.18	0.000
Control	50	50.44 ± 9.64	51.46 ± 9.17	0.164

Source: Results of control and ex	operimental group tests.

SD, standard deviation.

TABLE 3: Test results differ in youths' tolerance scores in the control group and experimental group after treatment.

Group	Period	N	Mean	SD	р
Control	Before	25	52.04	10.37	0.423
	After	25	52.68	10.43	
Experiment	Before	25	56.24	12.71	0.001
	After	25	75.08	11.31	

Source: The result of the calculation of the standard deviation.

SD, standard deviation.

needs are met, and a sense of comfort is present within. Similarly, sensitivity is more present in individuals. Nevertheless, the findings of other studies explain the difficulty of using OMG applications for elderly religious leaders in operating the knowledge and skills of the Application, because it has problems related to competency skills (Blasi et al. 2019; Jouan & Hallot 2020; Thailand et al. 2021). In this case, the change of knowledge is a form of transformation. Knowledge itself can give rise to the desire for truth and passion. Violence is often produced by the power. Knowledge is generated through several things: firstly, the agent's authority as an expert; secondly, learning based on absolutism; and thirdly, learning effectively and efficiently (Nur Ghufron 2020).

'[*T*]he advent of the OMG app made it enjoyable to play that game. Especially plus adventure photos throughout Indonesia. There are additional features of power, knowledge, and more fun playing this game.' (A)

Technological skills also support the individual's abilities (Thai et al. 2021). Although many games are used to escape, theoretically, the OMG application can meet the wants and needs of young people. This response is corroborated: "... Perfect for young people. OmG, apps can effectively teach lessons about tolerance" [B]. Although youths' wants and needs are influenced by various factors that have occurred now and in the past, it is not just personal issues that can be mediated to motivate increased knowledge, especially religious tolerance. Tolerance is limited by meeting satisfaction and needs (Ramlee, Syed Mohd Zain & Wan Husain 2019). Of course, restricting the two things becomes a principle to increase the culture of tolerance related to interpersonal relationships and awareness of public environmental relations.

Table 4 showed moderate game apps that effectively increase youth religious tolerance (male or female). In contrast, treatment without the OMG app provided no change in the level of religious tolerance in male youths. In line with Shaukat and Pell (2020), men have a higher level of religious tolerance than women. The consistency of these findings suggests that the OMG application could improve understanding of religious tolerance for different ages or social classes, such as children, adolescents, youths and the elderly. As with previous research, attractive games and engaging content are easier to influence young people, being majority users(Grubbs et al. 2019; Wong & Cheung

TABLE 4: Test	results diff	er based	on gender	 tolerance 	scores	in the	control
group and expe	eriments af	er treatn	nent.				

Group	N	Before	Before After	
		Mean ± SD	Mean ± SD	
Male				
Experiment	25	56.24 ± 12.71	75.08 ± 11.31	0.001
Control	25	52.04 ± 10.37	52.68 ± 10.43	0.423
Female				
Experiment	25	54.72 ± 11.51	74.04 ± 11.26	0.030
Control	25	48.84 ± 8.78	49.68 ± 8.62	0.164

Source: Calculation of average and SD field data.

SD, standard deviation.

2020). As stated by some participants, we became aware of religious tolerance' [C], and [...] learn about tolerance and its benefits as a social being that coexists with different religions, ethnicities, and social classes. Indonesian tolerance and cultural content from the OMG' [D] application, in addition to the influence of traditional values, and gender differentiation is one of the influential factors as well (Katrin 2020; Lan & Wang 2020). Unlike other studies, women's emotions are higher than men's, but men's social behavior is higher than that of women. Emotions and social behaviors will not be separated from each individual. Two different aspects are situations to increase the sensitivity of social relations, especially the ideas of mutual respect, tolerance, attention to other views, social orientation and youths' religion (Santos, Horta & Amancio 2021).

Based on Figure 2's test results, young Muslims have higher levels of religious tolerance than the youths of other faiths. These findings are supported by previous research. The majority group is more tolerant of other minority religious groups (Milligan, Andersen & Brym 2014), as ownership of broader social infrastructure can be used to communicate across cultures and religions (Athanasopoulos et al. 2021). Unlike other studies that emphasise welfare issues, social well-being is key to the birth of a level of religious tolerance with different groups (Cvetkovska et al. 2020; Chakim 2022). In this regard, religion as a social infrastructure can build harmonisation among its followers through welfare programs and a culture of tolerance. Aspects of intellectual and emotional intelligence are the determining factors. In addition, it is also supported by a moderate organisational environment. It is very influential on thoughts, attitudes and behaviours. The simultaneous use of OMG applications can create synergies between religious leaders and adherents to increase religious tolerance.

This research is significant and valuable. Firstly, this article indirectly provides evidence. The religions of this world have a strategic role in pluralistic societies. Although some face extreme views, the intolerance movement is getting stronger. This research shows that religiously tolerant messages play an important role. In other words, the rational thought of society tends to lead to intolerance because of its humanitarian claims to various parties. Secondly, the role of religious moderation through digitalbased media was affirmed in the study. This research shows that mainstreaming tolerant and attractive religious content is needed by diverse societies. The research also has some disadvantages and limitations. First is the drawback with the data on the involvement of Buddhist, Islamic, and Christian figures in extracting data on the views of tolerance in Indonesia. Furthermore, we cannot provide further information about the part of religious figures among young people to measure their involvement. Finally, we are less able to provide more information about the critical and strategic role of religious practices in the context of gamingbased social media applications, and further information

about the critical and strategic role of religious practice in the context of game-based social media applications. We need to re-understand the part of religious figures in the relationship between the use of digital media and religious tolerance for future research.

Limitations

The study was based on 10 interviews of young people of different genders and 100 high school-level youths, in interviews about the OMG app's opinions and its content on tolerance. All interviews have the same view. Likewise, the results of the questionnaire distributed to respondents showed effective influence. Thus, the interviews and current samples are weaknesses in selecting participants. In this study, tolerance in the context of young people is accepted. However, it is not necessarily taken among youths and college students at the junior high school level.

There is an opportunity to reject the concept of tolerance offered. However, a sample of young people considered intolerant or radical groups in their religious thoughts and practices. In this method, young people come from one city in Banyumas. It may have added to the variation in the perception of tolerance. Thus, caution should be exercised when publishing these findings to other contexts and in different communities.

Furthermore, the respondents and those interviewed were not known to be mass activists or members of religious organisations, so they did not know tolerance. Further studies of the broader sample of young people included colleges, community organisations and activists. No similar studies have been found to compare these studies so that their credibility is less assessable, regardless of limitations. This research contributes value by explaining the effectiveness of the OMG app with the content of messages about tolerance.

Conclusion

The OMG app is a game that provides religious tolerance education with a virtual *journey* model in various regions in Indonesia. In its use, the OMG app uses a *game-based* learning approach, referring to the use of gratefulness, *gameful* interaction and *gameful* design to educate youths to engage in building religious tolerance. Our Moderate Game app effectively improved youths' religious tolerance in Banyumas Regency, with an average religious tolerance score in the control class of 51.46. In the experimental group, the average religious tolerance score was 74.56. Based on gender, male respondents had a higher religious tolerance rate of 75.08 than female respondents, which was 74.04. Muslim youth who use the OMG application have a higher level of religious tolerance with a score of 81.10 compared to other religious youth.

This study showed that the OMG app increased youths' religious tolerance in Banyumas Regency. Considering the many cases of youth intolerance today, youths need religious

tolerance education using the OMG app. Further research is expected to be done using other bound variables, such as the OMG app in youths learning in school.

Our Moderate Game app, if accepted, can help youths, families, communities and governments overcome the emergence of radical, extreme and intolerant social, influential and even religious thoughts, attitudes and practices in society at large.

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Competing interests

The authors have declared that no competing interest exists.

Authors' contributions

S.C., F.F, A.B., A.R.B.P., U.S. contributed equally to this research article.

Ethical considerations

Ethical approval to conduct this study was obtained from the Health Research Ethics Commission Muhammadiyah University Purwokerto (ref. no. KEPK/UMP/19/11/2021).

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Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Disclaimer

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References

- Ahmad, M., Aziz, A., Afad, M.N., Muniroh, S.M. & Qodim, H., 2021, 'The sufi order against religious radicalism in Indonesia', *HTS Teologiese Studies/Theological Studies* 77(4), 1–11. https://doi.org/10.4102/hts.v77i4.6417
- Akmaliah, W., 2020, 'The demise of moderate Islam: New media, contestation, and reclaiming religious authorities', *Indonesian Journal of Islam and Muslim Societies* 10(1), 1–24. https://doi.org/10.18326/ijims.v10i1.1-24
- Al-Dmour, H., Masa'deh, R., Salman, A., Abuhashesh, M. & Al-Dmour, R., 2020, 'Influence of social media platforms on public health protection against the COVID-19 pandemic via the mediating effects of public health awareness and behavioral changes: Integrated model', *Journal of Medical Internet Research* 22(8), 1–15. https://doi.org/10.2196/19996

- Aniteye, P. & Mayhew, S.H., 2019, 'Globalisation and transitions in abortion care in Ghana', BMC Health Services Research 19(1), 1–12. https://doi.org/10.1186/ s12913-019-4010-8
- Asadu, G.C., Diara, B.C. & Asogwa, N., 2020, 'Religious pluralism and its implications for church development', *HTS Teologiese Studies/Theological Studies* 76(3), 1–9. https://doi.org/10.4102/hts.v76i3.5955
- Athanasopoulos, G., Eerola, T., Lahdelma, I. & Kaliakatsos-Papakostas, M., 2021, 'Harmonic organisation conveys both universal and culture-specific cues for emotional expression in music', *PLoS One* 16(1), 1–17. https://doi.org/10.1371/ journal.pone.0244964
- Blasi, M.D.I., Giardina, A., Giordano, C., Coco, G.L.O., Tosto, C., Billieux, J. et al., 2019, 'Problematic video game use as an emotional coping strategy: Evidence from a sample of MMORPG gamers', *Journal of Behavioral Addictions* 8(1), 25–34. https://doi.org/10.1556/2006.8.2019.02
- Brandenberger, J., Tylleskär, T., Sontag, K., Peterhans, B. & Ritz, N., 2019, 'A systematic literature review of reported challenges in health care delivery to migrants and refugees in high-income countries-the 3C model', *BMC Public Health* 19(1), 1–11. https://doi.org/10.1186/s12889-019-7049-x
- Caldeira, R.C. & Da Silveira, E.J.S., 2021, 'Catholic church and conservativetraditionalist groups: The struggle for the monopoly of Brazilian Catholicism in contemporary times', International Journal of Latin American Religions 5(2), 384–410. https://doi.org/10.1007/s41603-021-00147-1
- Canale, N., Marino, C., Griffiths, M.D., Scacchi, L., Monaci, M.G. & Vieno, A., 2019, 'The association between problematic online gaming and perceived stress: The moderating effect of psychological resilience', *Journal of Behavioral Addictions* 8(1), 174–180. https://doi.org/10.1556/2006.8.2019.01
- Cevasco, K.E., Roess, A.A., North, H.M., Zeitoun, S.A., Wofford, R.N., Matulis, G.A. et al., 2021, 'Survival analysis of factors affecting the timing of COVID-19 non-pharmaceutical interventions by U.S. universities', *BMC Public Health* 21(1), 1–9. https://doi.org/10.1186/s12889-021-12035-6
- Chakim, S., 2022, 'The youth and the internet: The construction of Doctrine, Islam in practice, and political identity in Indonesia', *Journal of Social Studies Education Research* 13(1), 217–236.
- Creswell, J.W., 2003, Research design: Qualitative, quantitative, and mixed methods approaches. Sage Publications, London.
- Cvetkovska, S., Verkuyten, M. & Adelman, L., 2020, 'Being tolerated and minority wellbeing: The role of group identifications', *International Journal of Intercultural Relations* 74(September 2019), 161–173. https://doi.org/10.1016/j.ijintrel.2019.10.010
- Edney, S., Plotnikoff, R., Vandelanotte, C., Olds, T., De Bourdeaudhuij, I., Ryan, J. et al., 2017, "Active team' a social and gamified app-based physical activity intervention: Randomised controlled trial study protocol', *BMC Public Health* 17(1), 1–10. https://doi.org/10.1186/s12889-017-4882-7
- Entradas, M., Bauer, M.W., O'Muircheartaigh, C., Marcinkowski, F., Okamura, A., Pellegrini, G. et al., 2020, 'Public communication by research institutes compared across countries and sciences: Building capacity for engagement or competing for visibility?', PLoS One 15(7), 1–17. https://doi.org/10.1371/journal.pone.0242950
- Ferreira-Valente, A., Sharmam, S., Torres, S., Smothers, Z., Pais-Ribeiro, J., Abbott, J.H. et al., 2019, Does religiosity/spirituality play a role in function, pain-related beliefs, and coping in patients with chronic pain? A systematic review, Springer USA.
- Grubbs, J.B., Kraus, S.W. & Perry, S.L., 2019, 'Self-reported addiction to pornography in a nationally representative sample: The roles of use habits, religiousness, and moral incongruence', *Journal of Behavioral Addictions* 8(1), 88–93. https://doi. org/10.1556/2006.7.2018.134
- Gumiandari, S., Hakim, M.A., Safii, S., Rokhmadi, R., Negeri, I., Nurjati, S. & Law, C.,2022, 'Mitigating radicalism amongst Islamic college students in Indonesia through religious nationalism, *HTS Teologiese Studies/Theological Studies* 78(4), a7547. https://doi.org/10.4102/hts.v78i4.7547.
- Jamilah, S., 2021, 'Moderate islamic education to enhance nationalism among Indonesian Islamic student organizations in the era of society 5.0', Journal of Social Studies Education Research 12(3), 79–100.
- Jee, M., Khan, A. & Nazneen, N., 2021, 'Understanding adolescents' perceptions and aspirations towards their relationship with personal technology: Survey study', *JMIR Formative Research* 5(12), e27852. https://doi.org/10.2196/27852
- Jouan, P. & Hallot, P., 2020, "Digital twin: Research framework to support preventive conservation policies," *ISPRS International Journal of Geo-Information* 9(4), 228, https://doi.org/10.3390/ijgi9040228.
- Kapetanovic, S., Rothenberg, W.A., Lansford, J.E., Bornstein, M.H., Chang, L., Deater-Deckard, K. et al., 2020, 'Cross-cultural examination of links between parent– adolescent communication and adolescent psychological problems in 12 cultural groups', *Journal of Youth and Adolescence* 49(6), 1225–1244. https://doi. org/10.1007/s10964-020-01212-2
- Katrin, L., 2020, 'Conversion as negotiation. Converts as actors of civil society', *Religions* 11(7), 1–17. https://doi.org/10.3390/rel11070322
- Kawabe, K., Horiuchi, F., Uno, H., Nakachi, K., Hosokawa, R., Oka, Y. et al., 2021, 'Parent-adolescent agreement on adolescents' emotional and behavioral problems assessed by the strengths and difficulties questionnaire', *Global Pediatric Health* 8, https://doi.org/10.1177/2333794X211001245
- Krok, D. & Zarzycka, B., 2021, 'Interpersonal forgiveness and meaning in life in older adults: The mediating and moderating roles of the religious meaning system', *Religions* 12(1), 1–14. https://doi.org/10.3390/rel12010037
- Lan, X. & Wang, W., 2020, 'Parental attachment and problematic internet use among Chinese adolescents: The moderating role of gender and grit', *International Journal of Environmental Research and Public Health* 17(23), 1–13. https://doi. org/10.3390/ijerph17238933
- Litt, E., Zhao, S., Kraut, R. & Burke, M., 2020, 'What are meaningful social interactions in today's media landscape? A cross-cultural survey', Social Media and Society 6(3), 1–17. https://doi.org/10.1177/2056305120942888

- Liu, C., Wang, B. & Sun, K., 2018, 'Fast power system dynamic simulation using continued fractions', *IEEE Access* 6, 62687–62698. https://doi.org/10.1109/ ACCESS.2018.2876055
- Lucchi, E., Pereira, L.D., Andreotti, M., Malaguti, R., Cennamo, D., Calzolari, M. et al., 2019, 'Development of a compatible, low cost and high accurate conservation remote sensing technology for the hygrothermal assessment of historic walls', *Electronics (Switzerland)* 8(6), https://doi.org/10.3390/electronics8060643.
- Mattes, D., 2020, 'Negotiating representations of neo-pentecostal aesthetic practice in Berlin,' *Religion and Society* 11(1), 163–175. https://doi.org/10.3167/ arrs.2020.110112
- Milligan, S., Andersen, R. & Brym, R., 2014, 'Assessing variation in tolerance in 23 Muslim-majority and western countries', *Canadian Review of Sociology* 51(3), 239–261. https://doi.org/10.1111/cars.12046
- Morrow, J.A., 2021, 'The covenants of the prophet and the problems of transmission: An analysis of a manuscript copied by fāris al-shidyāq', *Religions* 12(9), 751. https://doi.org/10.3390/rel12090751
- Mostfa, A., 2021, 'Violence and jihad in Islam: From the war of words to the clashes of definitions', *Religions* 12(11), 966. https://doi.org/10.3390/rel12110966
- Muttamba, W., Bbuye, M., Baluku, J.B., Kyaligonza, S., Nalunjogi, J., Kimuli, I. et al., 2021, 'Perceptions of adolescents and health workers towards adolescents' TB diagnosis in Central Uganda: A cross-sectional qualitative study', *Risk Management* and Healthcare Policy 14, 4823–4832. https://doi.org/10.2147/RMHP.S340112
- Nur Ghufron, M., 2020, 'Epistemological beliefs and mediating role of learning approaches on social attitudes of SHS students', Universal Journal of Educational Research 8(1), 202–211. https://doi.org/10.13189/ujer.2020.080125
- Pace, E., 2020, 'The Catholic charismatic movement in global Pentecostalism', *Religions* 11(7), 1–19. https://doi.org/10.3390/rel11070351
- Pajarianto, H., Pribadi, I. & Sari, P., 2022, 'Tolerance between religions through the role of local wisdom and religious moderation', *HTS Teologiese Studies/Theological Studies* 78(4), 1–8. https://doi.org/10.4102/hts.v78i4.7043
- Parker, K., Uddin, R., Ridgers, N.D., Brown, H., Veitch, J., Salmon, J. et al., 2021, 'The use of digital platforms for adults' and adolescents' physical activity during the COVID-19 pandemic (our life at home): Survey study', *Journal of Medical Internet Research* 23(2), 1–10. https://doi.org/10.2196/23389
- Pearce, W., Özkula, S.M., Greene, A.K., Teeling, L., Bansard, J.S., Omena, J.J. et al., 2020, 'Visual cross-platform analysis: Digital methods to research social media images', *Information Communication and Society* 23(2), 161–180. https://doi.org /10.1080/1369118X.2018.1486871
- Pilär, L., Stanislavská, L.K., Pitrová, J., Krejčí, I., Tichá, I. & Chalupová, M., 2019, 'Twitter analysis of global communication in the field of sustainability', *Sustainability* (*Switzerland*) 11(24), 6958. https://doi.org/10.3390/su11246958
- Quarshie, E.N.B., Waterman, M.G. & House, A.O., 2020, 'Adolescent self-harm in Ghana: A qualitative interview-based study of first-hand accounts', *BMC Psychiatry* 20(1), 1–14. https://doi.org/10.1186/s12888-020-02599-9
- Ramlee, R., Syed Mohd Zain, S.R. & Wan Husain, W.R., 2019, 'Are muslims practising moderation in their financial decisions?', Asian Academy of Management Journal 24(Suppl. 1), 157–170. https://doi.org/10.21315/aamj2019.24.s1.11
- Riboli, A., Olthof, S.B.H., Esposito, F. & Coratella, G., 2022, 'Training elite youth soccer players: Area per player in small-sided games to replicate the match demands', *Biology of Sport* 39(3), 579–598. https://doi.org/10.5114/biolsport.2022.106388
- Sadowski, R.F., 2021, The Role of Catholicism in Shaping a Culture of Sustainable Consumption. *Religions* 12(8), 598. https://doi.org/10.3390/rel12080598

- Santos, J.M., Horta, H. & Amancio, L., 2021, 'Research agendas of female and male academics: A new perspective on gender disparities in academia', Gender and Education 33(5), 625–643. https://doi.org/10.1080/09540253.2020.1792844
- Santos, T.C.F., Peres, M.A.A., Filho, A.J.A., Aperibense, P.G.G.S. & Alcántara, E.L., 2022, "Florence Nightingale's legacy: a reflection from Pierre Bourdieu's perspective," *Texto e Contexto Enfermagem* 31, https://doi.org/10.1590/1980-265x-tce-2021-0200.
- Shaukat, S. & Pell, A.W., 2020, 'Religious tolerance of Madrasa students according to their religious affiliation: An empirical investigation', *International Journal of Islam in Asia* 1(1), 67–90. https://doi.org/10.1163/25899996-01010005
- Shin, W., 2020, 'Mama, keep walking for peace and justice: Gender violence and Liberian mothers' interreligious peace movement', *Religions* 11(7), 1–13. https:// doi.org/10.3390/rel11070323
- Simmich, J., Mandrusiak, A., Smith, S.T., Hartley, N. & Russell, T.G., 2021, 'A codesigned active video game for physical activity promotion in people with chronic obstructive pulmonary disease: Pilot trial', *JMIR Serious Games* 9(1), 1–17. https://doi.org/10.2196/23069
- Tayebi, S.M., Manesh, S.R., Khalili, M. & Sadi-Nezhad, S., 2019, 'The role of information systems in communication through social media', *International Journal of Data* and Network Science 3(3), 245–268. https://doi.org/10.5267/j.ijdns.2019.2.002
- Thai, K.P., Bang, H.J. & Li, L., 2021, 'Accelerating early math learning with researchbased personalized learning games: A cluster randomized controlled trial', *Journal* of Research on Educational Effectiveness 0(0), 1–24. https://doi.org/10.1080/193 45747.2021.1969710
- Tuti, T., Winters, N., Muinga, N., Wanyama, C., English, M. & Paton, C., 2019, 'Evaluation of adaptive feedback in a smartphone-based serious game on health care providers' knowledge gain in neonatal emergency care: Protocol for a randomized controlled trial', *JMIR Research Protocols* 8(7), e13034. https://doi. org/10.2196/13034
- Vala, C. & Huang, J., 2019, 'Online and offline religion in China: A protestant wechat "alter-public" through the bible handcopying movement', *Religions* 10(10), 1–17. https://doi.org/10.3390/rel10100561
- Wang, C., Zhang, T., Xu, W., Ruan, H. & Tang, J., 2021, 'Social capital, technological empowerment, and resilience in rural China', *International Journal of Environmental Research and Public Health* 18(22), 11883. https://doi.org/10. 3390/ijerph182211883
- Watson, M., 2019, 'The damned neighbors problem: Rousseau's civil religion revisited', *Religions* 10(6), 349. https://doi.org/10.3390/rel10060349
- Wong, J.S.H. & Cheung, K.M.C., 2020, Orthopaedic surgeons and orthopaedic surgery in the era of COVID-19, Acta Orthopaedica et Traumatologica Turcica 54, 221–222. https://doi.org/10.5152/j.aott.2020.20150
- Xin, M., Chen, P., Liang, Q., Yu, C., Zhen, S. & Zhang, W., 2021, 'Cybervictimization and adolescent internet addiction: A moderated mediation model', *International Journal of Environmental Research and Public Health* 18(5), 1–13. https://doi. org/10.3390/ijerph18052427
- Zeng, S., Peng, Z. & Wu, L., 2021, 'Is there a role of religion? The moderation role of religious identity and religious practice between traditional media usage and moral evaluation', *Religions* 12(2), 1–17. https://doi.org/10.3390/rel12020137
- Zhu, C., Zeng, R., Zhang, W., Evans, R. & He, R., 2019, 'Pregnancy-related information seeking and sharing in the social media era among expectant mothers in China: Qualitative study', *Journal of Medical Internet Research* 21(12), 1–11. https://doi. org/10.2196/13694