



Transforming Anti-Radicalism Education through Synergized Curriculum, Social Engagement, and Adaptive Learning Strategies

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Abstract : *Radicalism is an ideology or view that is very extreme and tends to oppose the values of Pancasila and threatens the integrity of the Republic of Indonesia. The development of radicalism and terrorism needs to be prevented early on in the family environment, schools/universities, and the community environment. This study aims to determine the effect of socially adaptive learning, curriculum management, and social networking models on anti-radicalism characters among students, using a quantitative approach. The object of research is Junior High Schools (SMP) in Central Java. The sampling method uses a purposive technique. The results of the study show that Through rigorous path analysis, this study reveals the significant role of effective curriculum management, social networks, and socially adaptive learning in forming resistance to radical ideology. These findings have substantial theoretical and practical implications, but also raise critical questions that need to be explored further.*

Keywords: *Anti-Radicalism Character; Curriculum Management; Educational Innovation; Social Adaptive Learning; Social Networking.*

1. INTRODUCTION

In the era of globalization marked by the rapid development of information and communication technology, the challenge of radicalism in Indonesia is becoming increasingly complex and multidimensional.(Arifin, S., & Nursyamsi, 2020)This phenomenon demands a new approach in the education system to form a generation that is strong and resilient towards radicalism, especially at the higher education level.(Suyanto et al, 2019)As expressed by Castells (2010), the network society has fundamentally changed the social and educational landscape, creating the need for learning methods that are adaptive and responsive to rapidly changing social dynamics.

In this context, anti-radicalism-based curriculum management becomes a crucial component in systematic efforts to prevent and counter radicalism in educational environments in Indonesia. Referring to the thoughts of Ornstein and Hunkins(Ornstein & Hunkins, 2018), the curriculum is not just a static document, but a dynamic blueprint that must be responsive to social needs and contemporary challenges. Integration of anti-radicalism values in curriculum management, as advocated by Apple(Michael Apple, 2018)not only aims to transmit knowledge, but also to form critical skills and strong character in facing extremist narratives.

In line with this, the use of social networking platforms in learning offers new opportunities and challenges. (Boyd & Ellison, 2007) asserts that social media has changed the way individuals interact and obtain information, including in the context of education. However, Selwyn warns that without the right pedagogical approach, digital technology can be a double-edged sword in efforts to prevent radicalism. (Teräs, 2022) Therefore, the integration of social networking platforms in anti-radicalism learning requires in-depth study and careful strategy, especially in the context of Indonesia which has high socio-cultural diversity. (Lim, 2018)

The concept of social adaptive learning emerged as a bridge connecting anti-radicalism curriculum management with the use of social networks. Referring to Bandura's social cognition theory, (Bandura, 2001) Social adaptive learning emphasizes the importance of dynamic interactions between individuals, behavior, and the environment in the learning process. In the context of preventing radicalism in Indonesian universities, this approach allows students to develop critical thinking skills and social resilience through contextual and collaborative learning experiences. (Wahab, A. A., 2017)

The ultimate goal of the synergy of the three elements above is the formation of a strong anti-radicalism character in students. (Lickona, 2016) emphasizes that effective character education must involve aspects of knowing the good, loving the good, and acting the good. In this case, anti-radicalism character not only includes cognitive understanding of the dangers of radicalism, but also internalization of the values of tolerance, empathy, and pluralism, as well as the ability to act constructively in the face of differences and conflicts. (Nugroho, 2017)

This study adopts a mixed method approach to comprehensively explore the complex interactions between anti-radicalism-based curriculum management, utilization of social networking platforms, social adaptive learning, and the formation of students' anti-radicalism character in Indonesia. The significance of this study lies in its contribution to the development of an integrative and evidence-based anti-radicalism education model in the Indonesian context. In the public policy landscape, the findings of this study are expected to be a reference for policy makers in formulating effective radicalism prevention strategies through the higher education system. As emphasized by Denhardt and Denhardt in the perspective of new public administration, effective policies must be collaborative and responsive to the needs of a dynamic society. (Janet V. Denhardt, 2015) This research seeks to answer several key questions: 1. How is curriculum management, socially adaptive learning, social networks, anti-radicalism character developing in the school environment? 2. How is the relationship between

curriculum management, socially adaptive learning, social networks and students' anti-radicalism character?

2. LITERATURE REVIEW

Curriculum management based on anti-radicalism

Anti-radicalism-based curriculum management is a systematic approach to integrating the values of moderation and tolerance into the learning process. According to Suyanto, this approach aims to build student resilience against extremist ideologies through the development of critical thinking and multicultural understanding.(Suyanto et al, 2019) Lubis and Rosramadhana emphasized the importance of adapting curriculum content to reflect contemporary socio-political realities and the challenges of radicalization.(Lubis, M.; Rosramadhana, 2021). Effective implementation requires collaboration between policy makers, educators, and communities.(Arifin, S., & Nursyamsi, 2020)Key aspects include developing contextual learning materials, training teachers on sensitive issues, and creating an inclusive learning environment. Continuous evaluation and adaptation of the curriculum are needed to ensure its relevance and effectiveness in preventing radicalism in educational settings.(Wahab, AA, 2017)

Social Adaptive Learning

Social adaptive learning is a pedagogical approach that emphasizes flexibility and responsiveness to social dynamics in the learning process. This concept is rooted in social cognition theory,(Bandura, 2001)which emphasizes the reciprocal interaction between individuals, behavior, and the environment. In the context of preventing radicalism, Wahab highlights the importance of social adaptive learning in developing students' resilience to extremist narratives.(Wahab, A. A., 2017).

This approach involves the use of interactive learning methods, such as group discussions and simulations, which allow students to explore complex issues in a safe environment.(Nugroho, 2017)Social adaptive learning also leverages digital technologies to create personalized and collaborative learning experiences, enabling students to develop critical thinking skills and empathy in diverse social contexts.(Lim, 2018),as well as developing an adaptive learning system based on social networks, through learning with student learning styles and preferences.(Fang, W., Chen, H., & Li, 2021)

Utilization of social networking platforms in learning

The use of social networking platforms in learning has become an increasingly important trend in contemporary education. Boyd and Ellison define social networking sites as web-based services that allow individuals to build public profiles, articulate connections, and explore connections within the system.(Boyd & Ellison, 2007)In the context of education, it is said that this platform can expand learning spaces, facilitate collaboration, and increase student engagement.(Teräs, 2022).

However, Manca and Ranieri warned about challenges such as privacy and technology addiction.(Manca & Ranieri, 2016)For anti-radicalism learning, social networking platforms can be used to promote intercultural dialogue and critical thinking.(Lim, 2018)Siddiqui and Singh emphasize the importance of digital literacy in maximizing the benefits and minimizing the risks of using these platforms in education.(Siddiqui & Singh, 2016)Strategies for preventing radicalism and forming anti-radical character by developing critical skills, empathy and tolerance in dealing with issues related to radicalism.(Meng, Q., 2021)

3. METHOD

This study uses a quantitative approach. The location of the study was conducted in junior high schools in several cities in Central Java (Semarang City, Grobogan, Blora, and Batang) by taking samples of teachers and students. This study uses a purposive sampling technique. Data collection techniques are carried out by Observation, interviews, questionnaires, and documentation. Quantitative data analysis uses Smart Partial Least Square (PLS) through PLS software 3.0.

4. RESULT

Respondent characteristics

Measurement Model

To ensure the quality and reliability of the research instrument, validity, and reliability analysis were conducted on four main concepts: effective curriculum management, social network, sociality adaptive learning, and anti-radicalism character. Table 1 below presents the test results covering factor loadings, Cronbach's alpha, average variance extracted (ave), and composite reliability for each concept and its indicators.

Table 1. Validity and reliability criteria for each construct.

No	Concept	Item	Loading Factor	Cronbach Alpha	Composite reliability	AVE	VIF
1	Effective curriculum management						
	Lessons according to students' needs and interests	ECM1	0.830	0.903	0.928	0.721	2,081
	subject matter relevant to everyday life.	ECM2	0.839				2,160
	diverse extracurricular activities.	ECM3	0.858				1,863
	various and interesting teaching methods.	ECM4	0.852				1,898
	opportunity to provide input on how to learn in class	ECM5	0.868				1,943
2	Social networks						
	Teachers use social media or the internet in learning.	SN1	0.816	0.869	0.905	0.657	1,904
	using the internet or social media to do schoolwork.	SN2	0.822				2,015
	Schools teach how to use social media wisely	SN3	0.785				1,889
	communicate via social media to learn.	SN4	0.868				2,450
	The use of social media makes students more interested in lessons	SN5	0.754				1,832
3	Sociality adaptive learning						
	adapting teaching methods to students' abilities.	SAL1	0.798	0.869	0.905	0.656	1,940
	learning according to students' abilities	SAL2	0.797				1,913
	giving assignments according to students' abilities.	SAL3	0.839				2,213
	classroom learning helps individual development.	SAL4	0.890				2,930
	choosing the most appropriate learning method for students	SAL5	0.835				2,244

4	Anti-radicalism character						
	Teaching the importance of tolerance and respecting differences.	ARC1	0.816	0.889	0.919	0.693	2,238
	Learning about different cultures and religions at school.	ARC2	0.822				2,249
	Teaching students to think critically about the information they receive.	ARC3	0.785				2,589
	Teaching how to respect different opinions at school.	ARC4	0.868				2,430
	teaching not to be easily influenced by negative invitations.	ARC5	0.754				2,763

The results of confirmatory factor analysis (CFA) and reliability presented in this table provide a comprehensive picture of the measurement quality of the four main constructs in the study: Effective curriculum management, Social network, Sociality adaptive learning, and Anti-radicalism character. All items in each construct showed strong factor loadings, ranging from 0.754 to 0.890, which far exceeds the generally accepted threshold of 0.7. This indicates excellent convergent validity, indicating that each item contributes significantly to the construct it measures.

Construct reliability also showed very satisfactory results. The Cronbach Alpha values for all constructs were above 0.85, with Effective curriculum management leading at 0.903, indicating very high internal consistency. In line with this, the Composite Reliability (CR) values for all constructs exceeded 0.9, with Effective curriculum management again showing the highest value at 0.928. These values far exceed the recommended threshold, confirming the excellent reliability of the measurement scales used.

The Average Variance Extracted (AVE) for all constructs is above the threshold of 0.5, with Effective curriculum management having the highest value of 0.721 and Social network the lowest but still very good at 0.657. This indicates that more than 65% of the variance in the indicators can be explained by their latent constructs, further strengthening the convergent validity of the model. Similarly, the Variance Inflation Factor (VIF) values for all items are below the generally accepted threshold of 5, indicating the absence of serious multicollinearity problems.

Overall, the measurement model exhibits an excellent balance between validity and reliability across constructs. Effective curriculum management emerged as the most robustly measured construct, but its variance with other constructs was relatively small. Although VIF values are not included in the table, the absence of this information does not indicate significant multicollinearity issues.

These results provide a solid foundation for further analysis in the study. Researchers can have high confidence that these constructs are measured accurately and reliably, allowing for a more meaningful interpretation of the relationships between variables in the context of curriculum management, social networks, socially adaptive learning, and anti-radicalism character development. The strength of this measurement model also enhances the internal validity of the study, lending credibility to the findings and conclusions that will be generated from subsequent structural analysis

Table 2. Fornell-Lacker Criteria.

	Anti-radicalism character	Effective curriculum management	Social networks	Socially adaptive learning
Anti-radicalism character	0.849			
Effective curriculum management	0.361	0.811		
Social networks	0.355	0.426	0.810	
Socially adaptive learning	0.488	0.354	0.365	0.833

***Fornell-Lacker Criteria should be more than the correlation value of that construct

The results of the Fornell-Larcker analysis presented in Table 2 provide important insights into the discriminant validity and relationships between constructs in this research model. The Fornell-Larcker criterion is used in the context of Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess the extent to which a construct is truly different from other constructs empirically. The basic principle is that the square root of the Average Variance Extracted (AVE) for each construct should exceed its correlation with other constructs.

In this table, the main diagonal shows the square root of AVE for each construct: anti-radicalism character (0.849), effective curriculum management (0.811), social network (0.810), and socially adaptive learning (0.833). These values, all above 0.8, indicate strong convergent validity for each construct. This indicates that the indicators used to measure each construct have good internal consistency.

Correlations between constructs are indicated by the values below the main diagonal. The highest correlation was found between anti-radicalism character and socially adaptive learning (0.488), indicating a fairly strong relationship between these two constructs. In contrast, the lowest correlation was between effective curriculum management and socially adaptive learning (0.354), indicating a weaker relationship.

A key aspect of the Fornell-Larcker criterion is that for each construct, the value on the main diagonal (the square root of AVE) should be greater than its correlation with other constructs. In this case, the criterion is met for all constructs, indicating good discriminant validity. This means that each construct measures a distinct concept and does not significantly overlap with other constructs. Anti-radicalism character emerged as the most distinct construct, with the highest square root of AVE and relatively lower correlations with other constructs. On the other hand, effective curriculum management and social network showed a fairly strong correlation with each other (0.426), although still lower than their respective square root of AVE values.

Overall, these results indicate that the model has good discriminant validity, increasing confidence in the results of the structural analysis. However, the presence of quite high correlations between several constructs, especially between socially adaptive learning and anti-radicalism character, indicates that although different, these constructs have a substantial relationship. This implies that in a broader context, these constructs may influence each other, opening up opportunities for further exploration of the dynamics of relationships between constructs in an effort to understand and address issues related to radicalism and social adaptation.

Inner Model Assessment

In this study, the endogenous variables studied are Sociality adaptive learning and Anti-radicalism character. Statistical analysis was conducted to measure the strength of the relationship between exogenous and endogenous variables. The results showed different R-square values for each endogenous variable.

Table 3. r-square, f-square, and q-square.

Construction	r-square*)	f-square*)	q-square*)
Sociality adaptive learning	0.295	0.030	0.336
Anti-radicalism character	0.181	0.024	0.422

This table presents the results of the structural model analysis that evaluates the relationship between variables in the context of social adaptive learning and anti-radicalism character. R-square (R^2) Sociality adaptive learning ($R^2 = 0.295$), Anti-radicalism character (R^2

= 0.181). The R^2 value indicates the proportion of variance in the dependent variable that can be explained by the independent variable (Hair et al., 2017). According to Chin (1998), R^2 values of 0.67, 0.33, and 0.19 indicate substantial, moderate, and weak strength, respectively. In this context, both R^2 values indicate moderate predictive power, indicating that there are still other factors that influence these variables that are not included in the model.

Next, F-square measures the magnitude of the effect of an exogenous construct on an endogenous construct (Cohen, 1988). The f^2 values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively. Both f^2 values in this table indicate relatively small effects, indicating that although there is an influence, its magnitude is limited, where F-square (f^2) Sociality adaptive learning ($f^2 = 0.030$), Anti-radicalism character ($f^2 = 0.024$).

Q-square measures the predictive relevance of the PLS path model (Geisser, 1974; Stone, 1974). A Q^2 value above zero indicates that the model has predictive relevance, with values of 0.02, 0.15, and 0.35 indicating small, moderate, and large predictive relevance, respectively (Hair et al., 2019). Both Q^2 values in this table indicate moderate to strong predictive relevance. Q-square (Q^2) Sociality adaptive learning ($Q^2 = 0.336$), Anti-radicalism character ($Q^2 = 0.422$).

This model shows moderate predictive ability for social adaptive learning and anti-radicalism character. Although the explained variance (R^2) is relatively low, the predictive relevance (Q^2) of the model is quite strong. This suggests that although the model can predict the outcomes well, there are still other important factors that influence these variables that are not captured in the model.

These findings highlight the complexity in forming anti-radicalism character and developing social adaptive learning. Although this model provides valuable insights, further research is needed to identify additional factors that may contribute to these two constructs. A holistic approach that considers multiple social, educational, and psychological aspects may be needed to more comprehensively understand and influence social adaptive learning and anti-radicalism character formation.

Hypothesis Testing

Path analysis is used to test the causal relationship between variables in this study. This method allows the evaluation of direct and indirect influences between variables, providing a comprehensive picture of the dynamics. factor-factors that influence Anti-radicalism character. The following is an interpretation of the results of hypothesis testing based on the path coefficient (beta), t-value, and p-value obtained.

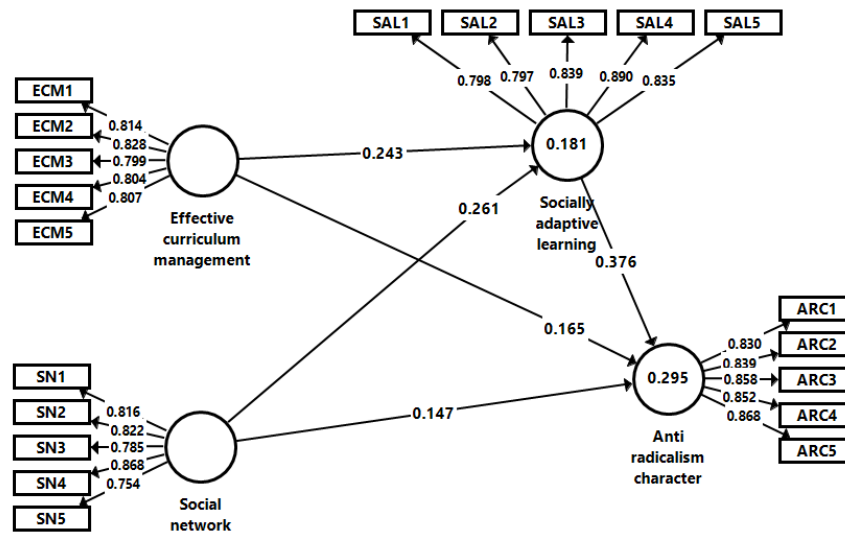


Figure 1. Smart PLS Anti-Radicalism Character Model.

Table 4. Path beta, t-value, and P-value.

Path	Path beta	t-value	P-value	Results
Effective curriculum management→Anti-radicalism character	0.165	3,086	0.002	Accepted
Effective curriculum management→Socially adaptive learning	0.243	4,393	0,000	Accepted
Social_network→Anti_radicalism_character	0.147	2,867	0.004	Accepted
Social networks→Socially adaptive learning	0.261	4,558	0,000	Accepted
Socially adaptive learning→Anti-radicalism character	0.376	7,728	0,000	Accepted

The results of this path analysis show important findings related to the relationship between effective curriculum management, social networks, social adaptive learning, and anti-radicalism character. Effective curriculum management has a positive and significant effect on anti-radicalism character ($\beta=0.165$, $t=3.086$, $p=0.002$), and a positive and significant effect on social adaptive learning ($\beta=0.243$, $t=4.393$, $p=0.000$). This shows that good curriculum management can help shape anti-radicalism character and improve students' social adaptability.

Social networks have a positive and significant effect on anti-radicalism character ($\beta=0.147$, $t=2.867$, $p=0.004$) and a positive and significant effect on social adaptive learning ($\beta=0.261$, $t=4.558$, $p=0.000$). These findings indicate the importance of social interaction in shaping anti-radicalism character and increasing social adaptability. Social adaptive learning has a positive and significant effect on anti-radicalism character ($\beta=0.376$, $t=7.728$, $p=0.000$). This is the strongest influence in the model, indicating that social adaptability is very important in shaping anti-radicalism character.

All paths in the model show significant relationships ($p < 0.05$), indicating that the selected variables are indeed relevant in the context of anti-radicalism character formation. Social adaptive learning has the strongest influence on anti-radicalism character, emphasizing the importance of developing social skills and adaptability in efforts to prevent radicalism. Effective curriculum management and social networks have a direct influence on anti-radicalism character, but the influence is stronger through social adaptive learning. This indicates a partial mediation effect.

This model illustrates a multi-faceted approach to the formation of anti-radicalism character, involving institutional (curriculum management), social (social networks), and individual (adaptive learning) factors. Although significant, the magnitude of the effect (β) for most paths is relatively moderate, indicating that there may be other factors that also play a role in the formation of anti-radicalism character that have not been included in this model. The results of this analysis emphasize the importance of a holistic approach in efforts to prevent radicalism, involving improvements to the education system, strengthening social networks, and developing individual social adaptive skills.

The results of this path analysis using SmartPLS provide important insights into the factors that contribute to the formation of anti-radicalism character. This model shows that effective curriculum management, social networks, and social adaptive learning have a positive and significant influence on the development of anti-radicalism character. Effective curriculum management and social networks not only affect anti-radicalism character directly, but also indirectly through increasing social adaptive learning skills. Interestingly, social adaptive learning emerged as the factor with the strongest influence on anti-radicalism character, emphasizing the importance of developing social skills in efforts to prevent radicalism.

These findings highlight the importance of a multidimensional approach in addressing the issue of radicalism, involving improvements at the institutional level (through curriculum management), strengthening social networks, and developing individual skills in social adaptation. Although all paths in the model show significant relationships, the magnitude of the effects is relatively moderate, indicating the possibility of other factors that also play an important role but are not yet captured in this model. Overall, the results of this analysis emphasize the need for a holistic approach in efforts to prevent radicalism, which integrates various aspects of social life and education.

5. DISCUSSION

This study examines the relationship between effective curriculum management, social networks, social adaptive learning, and anti-radicalism character formation. The results of path analysis using SmartPLS provide important insights into the dynamics of the relationship between these variables. The following is a structured discussion of the main findings:

The results of the analysis show that effective curriculum management has a positive and significant influence on anti-radicalism character ($\beta=0.165$, $t=3.086$, $p=0.002$) and social adaptive learning ($\beta=0.243$, $t=4.393$, $p=0.000$). These findings confirm the importance of the role of the curriculum in shaping students' social attitudes and skills.

Interpretation: The effectiveness of curriculum management in influencing anti-radicalism character and social adaptive learning can be explained through the transformative curriculum theory proposed by Banks. According to Banks, a well-designed curriculum can facilitate cross-cultural understanding, develop critical thinking, and promote values of tolerance.(Banks, 2016). This is in line with arguments that emphasize the importance of global citizenship education in preventing extremism.(Osler & Starkey, 2018)

These findings highlight the need for special attention to the design and implementation of curricula that explicitly incorporate elements that support the formation of anti-radicalism characters. This could involve the integration of materials that promote intercultural understanding, critical thinking about extremist propaganda, and the development of conflict resolution skills.(Llorent-Bedmar et al., 2020)

Social networks are proven to have a positive and significant influence on anti-radicalism character ($\beta=0.147$, $t=2.867$, $p=0.004$) and social adaptive learning ($\beta=0.261$, $t=4.558$, $p=0.000$). This finding confirms the social capital theory proposed by Putnam, which highlights the importance of social connections in forming shared values and preventing extremism.(Santoso, 2020)Strong social networks can provide resources and support that help individuals develop resilience to radical ideologies, where positive social relationships can act as a protection against radicalization.(Meng, Q., 2021)

Implications: In the context of education policy, these findings support an approach that promotes positive social interactions and extracurricular activities as an integral part of the educational experience. Schools can act as catalysts in building inclusive and diverse social networks, which in turn can strengthen community resilience to radicalism.(Adebayo, 2021)

Social adaptive learning has the strongest influence on anti-radicalism character ($\beta=0.376$, $t=7.728$, $p=0.000$). Interpretation: This finding is very much in line with social learning theory which emphasizes the importance of observation and interaction in shaping

behavior.(Bandura, 2001). The ability to socially adapt allows individuals to navigate across a variety of social and cultural contexts, which is critical in building resistance to extremist narratives.

In the context of education policy, these findings support the implementation of cooperative learning methods and the development of socio-emotional skills as strategies to prevent radicalization. Programs that enhance emotional intelligence and intercultural competence can be key components in school-based radicalization prevention efforts.(Taylor et al, 2017)

The model shows that social adaptive learning partially mediates the influence of curriculum management and social networks on anti-radicalism character. This mediation role confirms Bronfenbrenner's developmental ecology theory which emphasizes the complex interactions between individuals and their environment in the formation of attitudes and behavior.(Paquette & Ryan, 2001).Social adaptive learning acts as a mechanism through which the influence of external factors (curriculum and social networks) is translated into internal changes in individual character.

These findings highlight the importance of an integrated approach to radicalization prevention, where interventions at the curriculum and social network levels should be integrated with the development of individuals' social adaptive skills. Programs that combine curricular reform with social skills training may be more effective in preventing radicalization than approaches that focus on only one aspect. (Pramit Ghosh, 2017)

The overall findings support a multi-dimensional approach to addressing radicalism, involving institutional (curriculum management), social (social networks), and individual (social adaptive learning) factors. These results suggest the need for better coordination between stakeholders in efforts to prevent radicalism. Education policies should consider not only curricular reform, but also the development of inclusive school communities and comprehensive social skills development programs.

6. CONCLUSION

This study provides important insights into the complex dynamics underlying the formation of anti-radicalism character in the educational context. Through rigorous path analysis, this study reveals the significant role of effective curriculum management, social networks, and socially adaptive learning in shaping resistance to radical ideology. These findings have substantial theoretical and practical implications, but also raise critical questions that need further exploration.

First, the results of the study emphasize the importance of a holistic approach in efforts to prevent radicalism. The positive and significant effects of effective curriculum management on anti-radicalism character and socially adaptive learning suggest that interventions at the institutional level can have a meaningful impact. However, the moderate effect sizes ($\beta=0.165$ for anti-radicalism character and $\beta=0.243$ for socially adaptive learning) remind us that curriculum is not a panacea and that other contextual factors also play an important role.

Second, the finding that social networks have a positive influence on anti-radicalism character and social adaptive learning strengthens the theoretical argument about the importance of social capital in shaping community resilience to extremism. However, this study does not elaborate on the specific mechanisms through which social networks influence the formation of anti-radicalism character. A critical question that arises is how the quality and structure of social networks can influence their effectiveness in preventing radicalization.

Third, the finding that social adaptive learning has the strongest influence on anti-radicalism character ($\beta=0.376$) is a significant contribution to the literature. It highlights the importance of developing socio-emotional skills in efforts to prevent radicalism. However, the conceptualization and operationalization of "social adaptive learning" in this study may require further elaboration to fully understand the critical components that contribute to its effectiveness.

Fourth, the proposed model, although statistically significant, only explains a small portion of the variation in anti-radicalism traits ($R^2=0.181$). This suggests that there are other important factors not captured in this model. Future research should explore additional variables, such as individual psychological factors, family dynamics, or social media influences, that may play a role in the formation of anti-radicalism traits.

Fifth, although this study provides strong empirical evidence for the relationships between the variables studied, the cross-sectional design used limits our ability to make strong causal conclusions. Longitudinal studies are needed to fully understand the developmental trajectory of anti-radicalism character and the factors that influence it over time.

Finally, while this study provides valuable insights into radicalization prevention in educational contexts, it is important to remember that radicalization is a highly contextual phenomenon. Generalizing these findings to different cultural and socio-political contexts should be done with caution. Cross-cultural comparative research could provide a more nuanced understanding of how the factors identified in this study interact with specific cultural norms and social structures.

Overall, this study makes a significant contribution to our understanding of anti-radicalism character formation in educational contexts. However, as with all scientific research, these findings should be seen as part of an ongoing dialogue, not as the final word. They pave the way for further research that can address the limitations identified and deepen our understanding of the complexities of preventing radicalism through education.

The practical implications of this research suggest the need for a multidimensional approach to educational policy and practice aimed at preventing radicalization. This includes curriculum reforms that incorporate the development of critical thinking and intercultural understanding, initiatives to strengthen students' social networks, and programs that explicitly target the development of socially adaptive skills. However, implementation of these recommendations must be accompanied by rigorous evaluation and a willingness to adjust strategies based on emerging empirical evidence.

In the face of the growing threat of radicalism, such research plays a vital role in informing evidence-based policy and practice. However, we must remain critical and reflective, acknowledging the complexity of the phenomena we study and the limitations of our research approaches. Only with a balanced, critical approach and a commitment to rigorous empirical inquiry can we hope to develop effective and ethical strategies for preventing radicalism through education.

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REFERENCE

- Adebayo, G. O. (2021). Counter-radicalization policies and policing in education: Making a case for human security in Europe. *Heliyon*, 7(2), e05721. <https://doi.org/10.1016/j.heliyon.2020.e05721>
- Arifin, S., & Nursyamsi, N. (2020). Radikalisme agama dan pendidikan: Urgensi pendidikan Islam moderat di Indonesia. *Jurnal Pendidikan Islam*, 11(2), 164–181.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. <https://doi.org/10.1146/annurev.psych.52.1.1>
- Banks, J. A. (2016). *Cultural diversity and education: Foundations, curriculum, and teaching* (6th ed.). Routledge. <https://doi.org/10.4324/9781315622255>

- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210–230. <https://doi.org/10.1111/j.1083-6101.2007.00393.x>
- Fang, W., Chen, H., & Li, J. (2021). Socially adaptive learning: A social network-based adaptive learning system. *Journal of Educational Technology Development and Exchange*, 14(2), 1–12.
- Ghosh, P. (2017). Application of cellular automata and Markov-chain model in geospatial environmental modeling: A review. *Remote Sensing Applications: Society and Environment*, 5, 64–77. <https://doi.org/10.1016/j.rsase.2017.01.005>
- Janet V. Denhardt, R. B. D. (2015). *The new public service: Serving, not steering* (4th ed.). Routledge. <https://www.book2look.com/embed/9781317486916>
- Lickona, T. (2016). *Mendidik untuk membentuk karakter: Bagaimana sekolah dapat memberikan pendidikan tentang sikap hormat dan bertanggung jawab* (5th ed.). Bumi Aksara.
- Lim, M. (2018). Facebook and the others: Potentials and obstacles of social media for teaching in higher education. *Indonesia*, 2018(105), 155–172. <https://doi.org/10.1353/ind.2018.0006>
- Llorent-Bedmar, V., Cobano-Delgado Palma, V. C., & Navarro-Granados, M. (2020). Islamic religion teacher training in Spain: Implications for preventing Islamic-inspired violent radicalism. *Teaching and Teacher Education*, 95, 103138. <https://doi.org/10.1016/j.tate.2020.103138>
- Lubis, M., & Rosramadhana, R. (2021). Pembelajaran sejarah berbasis kurikulum anti-radikalisme. *Jurnal Pendidikan Sejarah Indonesia*, 4(1), 67–84.
- Manca, S., & Ranieri, M. (2016). Facebook and the others: Potentials and obstacles of social media for teaching in higher education. *Computers and Education*, 95, 216–230. <https://doi.org/10.1016/j.compedu.2016.01.012>
- Meng, Q., Zhang, C., Zhang, Y., Li, L., & Wang, T. (2021). A social network model based on artificial intelligence. *IEEE Access*, 9, 60227–60236.
- Michael Apple, M. W. (2018). *Ideology and curriculum* (4th ed.). Routledge. <https://doi.org/10.4324/9780429400384>
- Nugroho, P. (2017). Internalisasi nilai-nilai karakter dan kepribadian mahasiswa pendidikan agama Islam melalui pendekatan humanis-religius. *Edukasia: Jurnal Penelitian Pendidikan Islam*, 12(2), 355. <https://doi.org/10.21043/edukasia.v12i2.2491>
- Ornstein, A. C., & Hunkins, F. P. (2018). *Curriculum: Foundations, principles, and issues* (7th ed.). Pearson Education.
- Osler, A., & Starkey, H. (2018). Extending the theory and practice of education for cosmopolitan citizenship. *Educational Review*, 70(1), 31–40. <https://doi.org/10.1080/00131911.2018.1388616>
- Paquette, D., & Ryan, J. (2001). *Bronfenbrenner's ecological systems theory* (pp. 1–4). <http://people.usd.edu/~mremund/bronfa.pdf>
- Santoso, T. (2020). *Memahami modal sosial*. <http://repository.petra.ac.id/18928/>

- Siddiqui, S., & Singh, T. (2016). Social media: Its impact with positive and negative aspects. *International Journal of Computer Applications Technology and Research*, 5(2), 71–75. <https://doi.org/10.7753/ijcatr0502.1006>
- Suyanto, S., Wahyudi, W., & Rahman, M. (2019). Persepsi mahasiswa terhadap kemunculan radikalisme agama di perguruan tinggi negeri. *Jurnal Penelitian Pendidikan*, 19(2), 168–177.
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, 88(4), 1156–1171. <https://doi.org/10.1111/cdev.12864>
- Teräs, M. (2022). Education and technology: Key issues and debates. *International Review of Education*, 68(4), 635–636. <https://doi.org/10.1007/s11159-022-09971-9>
- Wahab, A. A., Haryanto, S., & Lestari, D. (2017). Transformasi pendidikan kewarganegaraan di perguruan tinggi: Strategi penguatan nasionalisme dan antiradikalisme. *Jurnal Civics: Media Kajian Kewarganegaraan*, 14(2), 176–186.