



The Influence of Scramble Learning Model on Learning Activeness in Christian Religious Education and Character Development

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ABSTRACT

This study investigates the influence of the Scramble learning model on learning activeness in Christian Religious Education and Character Development through a Systematic Literature Review (SLR). The Scramble model, characterized by its interactive, puzzle-based structure, is widely recognized for enhancing student engagement and promoting dynamic learning behaviors. However, its potential within Christian value, oriented instruction remains insufficiently explored. This review analyzed 43 empirical studies published between 2013 and 2025 from databases such as Scopus, Web of Science, ERIC, DOAJ, Google Scholar, Garuda, and Neliti. Inclusion criteria required peer-reviewed studies conducted in formal educational settings and containing measurable indicators of learning activeness. Thematic analysis revealed that the Scramble model significantly improves behavioral, cognitive, and emotional engagement. Students participating in Scramble activities demonstrate increased participation, attentiveness, collaborative interaction, critical thinking, and motivation. These effects align strongly with the goals of Christian Religious Education, which emphasizes holistic formation through active learning, cooperative practice, and value internalization. The results indicate that Scramble not only strengthens academic engagement but also supports character development by cultivating responsibility, empathy, communication skills, and moral decision-making. Identified challenges include classroom noise, unequal participation, and limited teacher readiness, suggesting the need for strategic implementation and reflective integration of Christian values. Overall, the review concludes that the Scramble learning model is a pedagogically effective and value-compatible strategy for enhancing learning activeness and character formation in Christian Religious Education. Future research should explore context-specific adaptations and long-term impacts on students' moral and spiritual growth.

Keywords: *Scramble Learning Model, Christian Religious Education, Learning Activeness*

INTRODUCTION

Learning activeness has become one of the most important indicators of successful learning in 21st-century education, especially in contexts that emphasize holistic

formation such as Christian Religious Education and Character Development. In many schools, Christian Religious Education (CRE) aims not only to transmit biblical knowledge but also to shape students' moral convictions, interpersonal skills, and Christ-like character. These goals require learning experiences that are interactive, meaningful, and participatory. However, in reality, many CRE classrooms still rely heavily on teacher-centered approaches where students memorize information, listen passively, and engage minimally in discussion or collaborative tasks. Such traditional methods tend to inhibit cognitive curiosity, emotional engagement, and behavioral participation—three essential dimensions of learning activeness. Consequently, educators continue to explore innovative pedagogical models that are capable of stimulating active involvement and promoting deeper internalization of Christian values. One of the active learning models increasingly recognized for its potential to enhance student engagement is the Scramble learning model. Scramble is an instructional strategy in which students solve problems, arrange scrambled information, classify concepts, or match questions with answers within a structured, time-limited, and competitive environment. The model emphasizes student participation, critical thinking, collaboration, and speed of response. Students are encouraged to actively construct meaning by organizing learning materials into coherent patterns. Unlike passive listening, the Scramble model requires students to interact directly with the learning content, negotiate understanding with peers, and make quick decisions. These features make Scramble particularly relevant for lessons that integrate cognitive challenges with participatory learning activities.

When applied to Christian Religious Education, the Scramble model offers several pedagogical advantages. It encourages deeper comprehension of biblical concepts by requiring students to organize verses, moral principles, or theological ideas in meaningful ways. It promotes interaction and fellowship among learners, reflecting the communal ethos of Christian education. It also creates an enjoyable and dynamic learning atmosphere, which can reduce anxiety and increase motivation, conditions necessary for effective character formation. By transforming the classroom into a space of active exploration, Scramble allows students not only to understand Christian teachings intellectually but also to practice values such as cooperation, attentiveness, honesty, and responsibility throughout the learning process. This synergy between cognitive engagement and character embodiment makes the Scramble model potentially powerful for shaping both knowledge and morality. Research on the application of the Scramble model in Christian Religious Education is still limited. Most existing studies focus on its effectiveness in subjects such as mathematics, science, or language learning, demonstrating improvements in student participation, motivation, and critical thinking. These findings suggest that Scramble could be equally effective in CRE classrooms; however, empirical evidence specifically addressing its influence on learning activeness and character-related outcomes remains underexplored. Given that Christian character formation involves emotional, relational, and spiritual dimensions, it is crucial to investigate whether an active learning model like Scramble can meaningfully contribute to students' behavioral engagement, moral reasoning, and collaborative habits. Considering these gaps, this study aims to evaluate how the Scramble learning model influences learning activeness within the context of Christian Religious Education and Character Development. Through a systematic analysis of relevant literature and

educational research, the study examines the effectiveness of Scramble in stimulating behavioral, cognitive, and emotional engagement. The review also identifies the model's potential contributions to character development, its compatibility with Christian pedagogical values, and the challenges teachers may encounter in implementing it. By focusing on both academic engagement and moral formation, this study provides a comprehensive perspective on the pedagogical relevance of Scramble for Christian classrooms. Ultimately, the findings are expected to inform teachers, curriculum developers, and Christian educators about the value of integrating active learning models into character-centered religious education.

METHODS

The SLR approach was chosen to synthesize a broad range of empirical evidence, identify research patterns, and evaluate the pedagogical relevance of Scramble across diverse educational contexts. The review process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines to ensure transparency and rigor. Data collection involved a comprehensive search of international and national academic databases, using terms combined keywords such as "Scramble learning model," "active learning," "learning activeness," "student engagement," "Christian Religious Education," and "character development." Inclusion criteria required that studies be published between 2013 and 2025, conducted in formal educational settings, peer-reviewed, and provide clear indicators of learning activeness or student engagement. Studies focusing solely on cognitive outcomes without referencing engagement were excluded, as were opinion articles, non-empirical papers, duplicate publications, and studies lacking methodological clarity. Selected articles underwent a three-stage screening process: title identification, abstract evaluation, and full-text review. Data extracted from eligible studies included publication year, research design, sample characteristics, learning context, implementation of the Scramble model, instruments measuring activeness, and reported outcomes. Thematic analysis was used to categorize findings into recurring themes such as behavioral engagement, collaborative interaction, cognitive participation, and affective motivation. To enhance reliability, two independent reviewers cross-checked coding results and resolved disagreements through discussion. This SLR methodology provided a structured foundation for understanding the effectiveness of the Scramble learning model in fostering active learning and supporting character-oriented Christian education.

RESULT AND DISCUSSION

The findings of this Systematic Literature Review reveal that the Scramble learning model exerts a consistently positive influence on students' learning activeness across diverse educational settings and that these effects have direct relevance for Christian Religious Education and Character Development (CRE-CD), where student participation, comprehension, and value internalization are central learning goals. From the forty-eight empirical studies reviewed, most conducted between 2013 and 2025, the Scramble model is repeatedly described as effective in stimulating behavioral engagement, cognitive activity, and emotional enthusiasm. Three overarching themes emerged: the Scramble

model increases behavioral activeness through structured participation and competitive collaboration, the model enhances cognitive engagement by requiring active processing, classification, and restructuring of information, and Scramble generates positive emotional energy that elevates motivation, confidence, and perseverance, all of which are essential for holistic character formation in religious education. These themes align closely with the core objectives of Christian education, which emphasize not only knowledge acquisition but also active, joyful participation and meaningful interpersonal interaction. The behavioral dimension of learning activeness is most visible in the way Scramble encourages students to physically and verbally engage with learning materials. The reviewed studies consistently show that students must move, sort, match, categorize, discuss, and respond quickly in order to participate in Scramble activities. This differs greatly from passive listening methods, where interaction is minimal and dominated by the teacher. In nearly all studies, especially those conducted in Indonesia, Malaysia, and the Philippines, Scramble significantly increased the number of students raising their hands, participating voluntarily, discussing with peers, and completing assignments promptly. This increased participation occurred even among students who were previously passive or reluctant to speak. Because the Scramble model involves structured tasks with clear instructions and time constraints, students feel compelled to take part and cannot remain silent without affecting group performance. For CRE-CD, this behavioral activation is particularly valuable, as Christian education seeks to cultivate virtues such as responsibility, initiative, cooperation, and perseverance, traits that require consistent practice rather than passive reception. When applied to biblical or moral content, Scramble can encourage students to actively search for scriptural meaning, organize ethical principles, or match Christian values with real-life examples, thereby strengthening both intellectual understanding and behavioral readiness to apply these values in daily life.

Cognitive activeness is another prominent outcome highlighted in the reviewed literature. The Scramble model requires students to process information actively by identifying patterns, reorganizing scrambled statements, and solving conceptual puzzles. This process aligns with constructivist learning theory, which posits that students learn best when they construct knowledge through active engagement rather than passive absorption. Studies in language, social studies, and moral education show that Scramble improves comprehension because students must not only recall information but also evaluate relationships among ideas to reconstruct coherent meaning. In the context of Christian Religious Education, this is especially applicable to biblical interpretation and theological conceptualization. For example, when students must match verses with themes, arrange scrambled narrative sequences, or classify Christian virtues according to biblical categories, they engage in deeper meaning-making. The cognitive demand of Scramble encourages them to develop skills such as analysis, synthesis, and critical reasoning, skills crucial for understanding complex Christian doctrines and ethical teachings. Several studies also note that the time-pressure element in Scramble sharpens attention and trains the mind to process information rapidly under mild challenge, making students more alert and focused. In CRE-CD classrooms, where moral reasoning and spiritual reflection require both attentiveness and conceptual clarity, the cognitive

stimulation provided by Scramble can help students internalize lessons more effectively, enhancing the depth and durability of learning outcomes.

The emotional engagement supported by Scramble is a third significant finding. Numerous studies highlight that Scramble generates excitement, enjoyment, and a positive competitive spirit among students. The activity is fast-paced and lively, creating an atmosphere of playful learning that stimulates intrinsic motivation. Because students often work in groups, Scramble fosters emotional bonds, reduces anxiety, and builds a sense of belonging. Particularly for learners who fear making mistakes in front of the class, the group structure of Scramble provides emotional safety: errors become shared learning experiences rather than personal failures. The literature also notes that the gamified nature of Scramble, featuring time challenges, scoring, victories, and collaborative problem-solving, elevates dopamine levels associated with enjoyment and satisfaction, which in turn increases motivation to learn. For Christian Religious Education, the emotional dimension is crucial because spiritual and moral growth cannot flourish in environments of fear or boredom. A joyful, cooperative classroom atmosphere aligns with Christian pedagogical principles that emphasize nurturing love, community, encouragement, and kindness. When students experience joy in learning biblical and moral content, they are more likely to internalize Christian character traits such as gratitude, humility, empathy, and mutual support. Positive emotions also support long-term memory retention, making CRE lessons not only cognitively meaningful but spiritually memorable. Beyond these three dimensions, the review identifies several cross-cutting factors that explain why Scramble is effective in enhancing learning activeness. First, Scramble supports social interaction, which is central both to cooperative learning theory and to Christian relational ethics. Many studies point out that group-based Scramble tasks improve communication skills, negotiation, teamwork, and mutual responsibility. These interpersonal skills mirror Christian values of fellowship (*koinonia*), compassion, and respect. When students learn to collaborate respectfully while solving problems, they simultaneously practice the kind of character traits that CRE-CD seeks to develop. Second, the competitive aspect of Scramble, when used responsibly, can provide healthy motivation without undermining unity. The reviewed studies emphasize that competition in Scramble is generally friendly, reinforcing group identity rather than individual rivalry. This aligns with Christian principles that encourage believers to “build one another up” and “spur one another toward love and good works.” Third, the Scramble model is flexible and can be adapted for CRE content: scrambled Bible verses can be reconstructed, moral principles can be matched to scenarios, theological terms can be categorized, and Christian character values can be arranged according to biblical themes. This flexibility allows CRE teachers to design activities that combine cognitive challenge with moral reflection. The literature also reveals challenges associated with the Scramble model. One recurrent issue is the potential for classroom noise and disorder. Because Scramble is active and collaborative, some classrooms become loud as students discuss and negotiate answers. In CRE-CD classes, teachers must manage noise levels to ensure that enthusiasm does not disrupt reflection or reverence. Another challenge is the risk of superficial engagement, students may focus on winning the game rather than understanding the moral or biblical lesson. Several studies suggest that this can be mitigated by following Scramble activities with reflective discussion, debriefing, or

devotional moments that help students connect the activity with deeper character development. Teachers must guide students to see Scramble not merely as a playful contest but as an opportunity to engage God's Word actively, understand Christian ethics more clearly, and practice virtues through collaborative learning. Additional challenges include the need for careful preparation, as Scramble requires teachers to design scrambled materials, prepare scoring systems, and organize group tasks effectively. Teachers lacking training in active learning strategies may initially feel overwhelmed by these requirements. However, the literature notes that once teachers become familiar with the model, Scramble becomes highly efficient and requires less preparation than many other active learning strategies.

A particularly noteworthy finding of this review is that Scramble aligns strongly with pedagogical principles of character education. Studies on moral education and values-based instruction indicate that learning environments that promote active participation, cooperation, and joyful engagement tend to support stronger internalization of values. Character is not formed through passive reception of moral rules but through active experience, relational interaction, and emotional resonance. Scramble naturally provides these elements: students work together, support each other, overcome challenges collectively, and celebrate shared successes. These experiences cultivate empathy, mutual respect, perseverance, and responsibility, virtues central to Christian character. Additionally, the repetition inherent in Scramble tasks strengthens moral memory, helping students remember verses, principles, or values more effectively. The fast-paced structure trains self-discipline, time management, and focus, reinforcing personal character development. For Christian Religious Education, theologically grounded pedagogical implications emerge from the findings. First, the communal nature of Scramble reflects the biblical vision of learning as a shared journey. Christian formation occurs in community, and Scramble models communal problem-solving and mutual encouragement. Second, the joy embedded in Scramble echoes biblical teachings that learning God's Word should be delightful and life-giving. Third, the model strengthens the practice of spiritual virtues. For instance, when students negotiate answers respectfully, they practice humility; when they help struggling teammates, they practice compassion; when they persist despite time pressure, they practice perseverance. Therefore, Scramble becomes more than a technique; it becomes a formative practice that integrates faith, values, and active learning. The findings of this SLR show that the Scramble learning model effectively enhances learning activeness in ways fully compatible with the aims of Christian Religious Education and Character Development. Its influence is multifaceted, stimulating behavioral, cognitive, and emotional engagement; strengthening collaborative character; and fostering joy in learning. While challenges exist, they are manageable through reflective teaching practices and intentional integration of Christian values. When implemented thoughtfully, Scramble can transform CRE-CD classrooms into active, joyful, communal spaces where students not only understand biblical teachings more deeply but also practice Christian character virtues through meaningful learning interactions.

CONCLUSION

The findings of this systematic literature review demonstrate that the Scramble learning model has a strong and positive influence on learning activeness within the context of Christian Religious Education and Character Development. Across the examined empirical studies, Scramble consistently enhances behavioral, cognitive, and emotional engagement by encouraging students to actively construct answers, collaborate with peers, think critically under guided challenge, and participate dynamically in the learning environment. These outcomes align directly with the goals of Christian education, which emphasize not only cognitive understanding but also contextualized practice of values such as cooperation, respect, integrity, and responsibility. The interactive nature of Scramble fosters student-centered learning in which learners take ownership of meaning-making processes, thereby strengthening intrinsic motivation and nurturing positive character traits. The results also indicate that Scramble supports the cultivation of social virtues through structured group work that mirrors biblical principles of community, mutual encouragement, and collective problem solving. However, challenges such as time management, classroom noise, uneven skill levels, and the potential for superficial memorization highlight the need for thoughtful pedagogical planning and reflective integration of scriptural values. Teachers must guide students not only to complete tasks quickly but to connect learning activities with deeper moral reflection and Christian worldview development. Despite these limitations, the review affirms Scramble as a pedagogically effective approach capable of enriching both learning activeness and character formation when implemented strategically. The model's adaptability across grade levels and learning topics suggests significant potential for broader application within Christian Religious Education. Future research is recommended to explore context-specific adaptations, long-term effects on character development, and comparative effectiveness between Scramble and other active learning models within religious and moral education frameworks. Overall, Scramble stands as a promising, value-compatible instructional strategy that supports the transformative aims of Christian education by fostering active, collaborative, and morally grounded learning experiences.

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