



## The Implementation of the Mind Mapping Model in Christian Religious Education at SDN 074063 Botolala Uludumula

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### ABSTRACT

*This study aims to examine the effectiveness of implementing the mind mapping model in Christian Religious Education (CRE) learning at SDN 074063 Botolala Uludumula. The research employed a descriptive qualitative approach, with data collected through observation, interviews, and documentation. The sample consisted of 28 fifth-grade students and 2 CRE teachers. The findings reveal that: (1) the application of the mind mapping model in CRE successfully improved students' understanding of biblical concepts by 76.4%; (2) mind mapping facilitated an increase in students' creativity in expressing Christian values; (3) a positive correlation was found between the use of mind mapping and students' ability to recall and apply CRE concepts in daily life; and (4) the mind mapping model enhanced students' active engagement in the CRE learning process. The study concludes that the mind mapping model is an effective instructional strategy for teaching CRE at the elementary level, particularly in helping students understand, organize, and integrate Christian concepts in a creative and meaningful manner.*

**Keywords:** *mind mapping, Christian Religious Education, elementary school, creativity, active learning*

### INTRODUCTION

Christian Religious Education (CRE) at the elementary school level plays a highly strategic role in shaping the foundations of faith and instilling Christian values in children. The elementary years represent a crucial period of both cognitive and affective development, during which children begin to form a basic understanding of morality, spirituality, and their relationship with God and others. Thus, CRE is not merely a formal subject but also serves as a vital means of character formation and early spiritual development. In practice, CRE instruction often encounters a range of challenges, particularly with respect to teaching methods. In many schools, including public elementary schools, CRE continues to be delivered through conventional approaches such as lectures, memorization, and written assignments. While these methods have historical relevance, they tend to be less effective in fostering student interest and active participation. As a result, many students

struggle to grasp theological concepts in depth and find it difficult to connect what they learn in CRE with the realities of their daily lives. Sidjabat (2019) argues that effective CRE must be participatory, requiring the active involvement of students in the learning process. This entails that teachers should accommodate diverse learning styles, including visual, auditory, and kinesthetic modalities. Similarly, Nuhamara (2018) emphasizes that CRE is not merely a vehicle for transferring theological knowledge but rather a holistic process of transformation that encompasses the cognitive (knowledge), affective (attitudes), and psychomotor (actions) dimensions of human development. In other words, CRE should touch the entirety of students' humanity so that they are able to embody and practice Christian values in their lives. Within this context, there is a pressing need for more innovative and student-centered teaching methods. One promising approach is the mind mapping model developed by Tony Buzan. Mind mapping is a visual and creative technique for recording and organizing information in an engaging manner. By using keywords, images, symbols, colors, and branching conceptual links, mind mapping helps students to comprehend and retain information in a more natural and integrative way. Buzan (2018) explains that mind mapping aligns with the way the human brain processes and organizes interconnected ideas. Unlike linear processing, the brain functions through associative patterns. Therefore, presenting content in a visual and associative format can significantly enhance learning effectiveness. Supporting this view, Windura (2016) asserts that mind mapping strengthens memory and comprehension because students are not merely passive recipients of information through reading or listening, but are actively engaged in visualizing and constructing their own knowledge. Previous studies have demonstrated the positive impact of mind mapping on student learning outcomes. For instance, Sinaga (2020) found that incorporating mind mapping into CRE lessons increased student motivation and academic performance. Students became more enthusiastic about learning, developed a deeper understanding of religious concepts, and demonstrated reflective attitudes toward the values taught. Similarly, Tambunan (2018) reported that mind mapping facilitated students' ability to organize theological thinking, particularly in understanding interrelated Christian concepts such as love, forgiveness, and sacrifice.

In the local context, SDN 074063 Botolala Uludumula in Nias Regency, North Sumatra, is a public elementary school implementing CRE in accordance with the national curriculum. Preliminary observations conducted by the researcher revealed that CRE at this school remains dominated by teacher-centered methods such as lectures and individual assignments. Teachers largely function as the primary source of information, while students assume passive roles. This condition results in limited student participation and weak connections between lesson content and students' lived experiences. Such conditions present several problems, many students face difficulties in comprehending essential CRE concepts, including God's love, faith in Christ, and living in righteousness. Furthermore, the reliance on uniform teaching strategies neglects students' varied learning styles, leaving some children disengaged and unmotivated. This situation undermines the core objective of CRE, which is to instill Christian values deeply and contextually. Against this backdrop, the present study aims to explore and analyze the implementation of the mind mapping model in CRE at SDN 074063 Botolala Uludumula. Specifically, the research pursues four main objectives. First, to analyze how teachers apply mind mapping in CRE instruction, including aspects of planning, classroom

implementation, and assessment. Second, to identify students' responses to the use of mind mapping in CRE, focusing on their interest, engagement, and comprehension. Third, to evaluate the effectiveness of mind mapping in enhancing elementary students' understanding of CRE concepts by comparing learning outcomes before and after its application. Fourth, to examine both the supporting and inhibiting factors in the use of mind mapping, such as teacher readiness, available facilities, and institutional support. Through a holistic research approach grounded in real classroom contexts, this study aspires to contribute to the development of more innovative and contextually relevant methods of CRE instruction. The use of mind mapping is expected not only to improve cognitive learning outcomes but also to stimulate student interest and nurture spiritual awareness. In this way, CRE can become an effective medium for shaping young Christians who are not only intellectually capable but also firmly rooted in faith and moral character. Furthermore, this study offers practical implications for CRE teachers in elementary schools. Teachers are challenged to adopt more creative instructional strategies that reflect both the characteristics of their students and the nature of the subject matter. Mind mapping represents a feasible, cost-effective, and enjoyable alternative for students. With appropriate training and guidance, CRE teachers can integrate mind mapping into their lesson plans and employ it as part of a broader pedagogical approach. Finally, by taking into account the specific cultural and contextual characteristics of schools such as SDN 074063 Botolala Uludumula, the implementation of mind mapping can be adapted to align with local values and student needs. Contextualization is key to ensuring that this innovative approach does not merely represent an educational trend but yields genuine transformational impact on students' spiritual lives.

## **METHODS**

This study applied a Classroom Action Research (CAR) method, as it allowed the researcher to directly observe changes occurring within the Christian Religious Education (CRE) learning process through the application of the mind mapping model. The CAR was conducted in two cycles, each consisting of the stages of planning, implementation, observation, and reflection. This approach was considered effective for examining in depth the classroom dynamics and students' responses to the applied learning method. The research subjects comprised 28 fifth-grade students - 12 male and 16 female - as well as two CRE teachers at SDN 074063 Botolala Uludumula, Nias Regency, North Sumatra. The study was carried out over one semester, from January to June 2024. It was conducted using multiple techniques. Participatory observation was employed to directly examine the learning process and students' responses to the use of the mind mapping model. In addition, semi-structured interviews with both teachers and students were conducted to explore their perceptions regarding the implementation of this model. Quantitative data were obtained through tests measuring students' understanding of CRE concepts before and after the implementation of the model. Questionnaires were also distributed to capture students' perceptions of their learning experiences using mind mapping. During the preparation stage, preliminary observations, problem identification, the development of CRE lesson plans using mind mapping, and the preparation of research instruments were undertaken. In the first cycle, lesson plans were designed and implemented under the theme "God's Love in Creation," followed by observation and reflection for improvement. In the second cycle, adjustments were made based on prior

reflections, and the lesson theme “Jesus as a Role Model” was implemented, accompanied by follow-up observation and final reflection.

### **RESULT AND DISCUSSION**

The implementation of the mind mapping model in Christian Religious Education (CRE) at SDN 074063 Botolala Uludumula was not a spontaneous effort but rather a carefully planned pedagogical initiative. The process was systematically designed to ensure that teachers and students alike could adapt effectively to this relatively innovative learning strategy. At the preparatory stage, CRE teachers were first introduced to the theoretical foundations of mind mapping. They underwent training sessions that focused on understanding the basic principles of the technique, such as the use of central ideas, the organization of branches, and the application of visual elements including symbols and colors. Teachers also learned how to translate these principles into practical classroom instruction, ensuring that mind mapping would not be treated as a superficial activity but rather as an integrated learning strategy that supported the achievement of curriculum goals. Following the training, teachers developed lesson plans that explicitly incorporated mind mapping activities into CRE instruction, with clear learning objectives, structured activities, and criteria for student assessment. The actual classroom implementation followed a structured and progressive process that allowed students to gradually become familiar with and proficient in using the technique. To begin with, students were introduced to the concept of mind mapping through simple and accessible examples. This step was crucial to building a foundational understanding of how ideas could be visually represented and interconnected. Once students gained familiarity with the basic idea, they were then assigned thematic topics drawn from the CRE curriculum. In the first cycle, the central theme provided was “*God’s Love in Creation*,” while in the second cycle, the theme shifted to “*Jesus as a Role Model*.” These topics were deliberately chosen because of their strong theological and moral significance, which allowed students to explore both doctrinal understanding and value-based reflection. Teachers played a central role as facilitators in guiding students through the stages of mind map construction. They encouraged students to identify the main concepts embedded within the thematic topics, which then served as the basis for constructing the main branches of the mind map. From there, sub-branches were developed to expand on the key ideas, with supporting details drawn from biblical texts, classroom discussions, and students’ own reflections. This process not only strengthened students’ comprehension of the subject matter but also fostered higher-order thinking skills, as students were required to analyze, synthesize, and organize information into a coherent structure.

An essential feature of the activity was the use of visual elements to reinforce conceptual understanding. Students were encouraged to enrich their mind maps with drawings, symbols, and color coding, which helped to make abstract concepts more concrete and memorable. For example, the theme of *creation* could be illustrated with images of the natural world, while the theme of *Jesus as a role model* might be depicted with symbols of love, humility, or service. Such visual representations not only stimulated creativity but also catered to diverse learning styles, particularly benefiting visual learners. The implementation process was not limited to individual work but emphasized collaboration and shared learning. Students often worked in small groups, where they could exchange ideas, negotiate the organization of concepts, and contribute creatively to the collective

product. The group-based approach also encouraged communication skills, teamwork, and peer learning, as students learned to respect differing perspectives while striving toward a common goal. Once the mind maps were completed, each group presented their work to the class. These presentations provided opportunities for students to articulate their understanding, defend their choices, and receive feedback from both peers and teachers. The final stage of the process was collective reflection, where both students and teachers evaluated the experience. Reflection sessions allowed students to assess their learning process, identify the strengths and weaknesses of their mind maps, and consider how the activity had deepened their understanding of Christian teachings. Teachers, on the other hand, used this stage to identify areas for improvement in their instructional methods and to adjust lesson plans for future cycles. The application of mind mapping in CRE learning at SDN 074063 Botolala Uludumula demonstrated its value as a holistic pedagogical approach. It combined cognitive, creative, and collaborative dimensions of learning, enabling students not only to comprehend biblical concepts but also to internalize Christian values in a meaningful way. By engaging both the logical and imaginative faculties of students, mind mapping bridged the gap between abstract theological ideas and concrete personal understanding. The process also highlighted the importance of active learning, where students are not passive recipients of knowledge but active participants in constructing, visualizing, and sharing their understanding. The structured implementation of the mind mapping model proved to be an effective strategy in enhancing the quality of CRE instruction. Its success lay in the careful preparation of teachers, the systematic guidance of students through each stage of the process, and the emphasis on both cognitive mastery and value formation. As demonstrated through this case, mind mapping holds significant potential to enrich religious education by fostering deeper engagement, creativity, and reflective learning among students. Observations revealed notable improvements between the two cycles. In the first cycle, many students struggled with organizing ideas and connecting concepts. By the second cycle, however, most students were able to construct more coherent mind maps with richer content and clearer structural relationships. The following table summarizes the key differences observed between the two cycles:

**Table 1. Comparison of Students' Mind Mapping Characteristics in Cycle I and Cycle II**

<b>Aspect</b>	<b>Cycle I</b>	<b>Cycle II</b>
<b>Structure</b>	Simple, 2–3 main branches	More complex, 4–6 main branches
<b>Content</b>	Limited to basic concepts	More in-depth, including applications
<b>Creativity</b>	Minimal use of colors and images	Varied use of colors, images, and symbols
<b>Conceptual connections</b>	Weak and unclear	More explicit with connecting lines and keywords
<b>Reflection on Christian values</b>	Mostly repetition of material	Evidence of internalization and personal reflection

### Students' Responses to the Use of Mind Mapping

Findings from questionnaires and interviews indicated generally positive responses. Approximately 85.7% of students reported that they enjoyed CRE lessons more when using mind mapping, describing it as engaging and helpful in understanding the material. Several student statements illustrate this enthusiasm: *"I like learning CRE with mind mapping because I can color and draw while learning about Jesus."* (S12) *"Mind mapping helps me remember Bible stories more easily because of the pictures."* (S17) *"Now I can explain God's love to my friends more clearly."* (S23) Nevertheless, 14.3% of students admitted facing challenges, particularly in organizing ideas and linking concepts, especially during the initial stages of implementation.

### Effectiveness of Mind Mapping in Enhancing Conceptual Understanding

The effectiveness of mind mapping was measured through pre-test and post-test comparisons of students' understanding of CRE concepts. The results indicated significant improvement following the intervention.

**Table 2. Comparison of CRE Conceptual Understanding Before and After Implementation**

Aspect of Understanding	Pre-test (%)	Post-test (%)	Improvement (%)
Knowledge of biblical concepts	54.2	76.4	22.2
Understanding of Christian values	60.7	82.1	21.4
Application in daily life	48.3	77.8	29.5
<b>Average</b>	<b>54.4</b>	<b>78.8</b>	<b>24.4</b>

The most significant improvement was in students' ability to apply CRE concepts in daily life (29.5%). This demonstrates that mind mapping not only facilitated theoretical understanding but also supported the transfer of knowledge into practical, lived experiences. Teachers also confirmed these findings, noting that mind mapping helped students organize their thoughts and recognize interrelationships between CRE concepts. It further stimulated student engagement, with previously passive learners becoming more active participants.

### Supporting and Inhibiting Factors

The study identified both enabling and constraining factors in the implementation of mind mapping. Supporting factors included students' enthusiasm for creative and visual learning, administrative support from the school in providing resources, the flexibility of the CRE curriculum to integrate innovative strategies, teachers' commitment to pedagogical improvement, and the availability of illustrated biblical storybooks as supplementary materials. Conversely, inhibiting factors involved limited instructional time for CRE (two hours per week), varying student abilities in constructing mind maps, gaps in teachers' mastery of optimal mind mapping techniques, difficulties among some students in expressing their ideas visually, and challenges in objectively evaluating mind maps. To address these constraints, supplementary guidance was provided to struggling students, teachers received follow-up training, and more comprehensive assessment rubrics were developed to evaluate both the process and the product of students' work.

### Theoretical and Practical Implications

The findings affirm that the application of mind mapping in CRE learning had a positive impact on students' conceptual understanding and classroom engagement. The 24.4% overall improvement in comprehension underscores its effectiveness in fostering meaningful learning. The results align with constructivist learning theory, which emphasizes students' active role in building their own understanding (Vygotsky, as cited in Schunk, 2018). In CRE, mind mapping enabled students to construct personal interpretations of Christian values based on prior knowledge and lived experiences. Additionally, mind mapping accommodates diverse learning styles, particularly visual learners, consistent with Gardner's theory of multiple intelligences (2017). By engaging both hemispheres of the brain - logical-analytical (left) and creative-visual (right) - mind mapping promotes holistic information processing (Buzan, 2018). This dual engagement is particularly important in CRE, where learning encompasses not only cognitive but also affective and spiritual dimensions. The high level of student motivation and engagement observed supports Deci and Ryan's self-determination theory (2015), which posits that intrinsic motivation flourishes when learners feel competent, autonomous, and connected. Mind mapping met these psychological needs by allowing students to creatively and personally express their understanding of Christian teachings. While the model demonstrated considerable benefits, further optimization is needed. Time limitations could be mitigated by integrating mind mapping into project-based learning, allowing students to continue their work beyond formal class hours. Scaffolding techniques could support students who initially struggled, while collaborative learning could encourage peer-to-peer assistance. Comprehensive rubrics would enhance objectivity in assessment, focusing on structure, content, creativity, and reflection on Christian values. This study provides empirical evidence that mind mapping is an effective and meaningful instructional strategy for CRE in elementary education. It not only strengthens conceptual understanding but also facilitates the integration of biblical principles into students' daily lives. These findings reinforce the importance of multimodal approaches in CRE pedagogy and offer practical insights for teachers seeking to cultivate deeper engagement and transformative learning among their students.

### **Conclusion**

Based on the findings and discussion, it can be concluded that the application of the mind mapping model in Christian Religious Education (CRE) learning at SDN 074063 Botolala Uludumula proved effective in enhancing students' conceptual understanding of CRE. The model not only supported cognitive development but also encouraged students to apply Christian values in their everyday lives. The study yielded several specific conclusions. First, the mind mapping model can be successfully implemented in primary-level CRE instruction when guided by systematic stages, beginning with concept introduction, continuing with structured development, and culminating in reflective evaluation of both process and outcomes. Second, students' responses to this learning approach were predominantly positive, with 85.7% reporting that they enjoyed using mind mapping, highlighting that it made lessons more engaging and easier to understand. Third, the use of this model improved students' comprehension of CRE concepts by 24.4%, with the most substantial gain observed in the application of concepts to daily life (29.5%). Fourth, the main supporting factors identified were student enthusiasm, institutional support, and teacher commitment, while key challenges included limited instructional time,

variations in students' abilities, and difficulties in assessment. This research contributes to the advancement of more innovative, student-centered strategies in CRE pedagogy. As a visual learning model, mind mapping serves as a bridge between abstract biblical concepts and the concrete understanding of elementary school students. Several recommendations are proposed for future studies. One is the exploration of digital technologies in developing interactive mind mapping applications for CRE instruction. Another is the implementation of longitudinal studies to examine the long-term impact of mind mapping on students' comprehension and internalization of Christian values. Furthermore, developing more comprehensive authentic assessment models would enhance the evaluation of students' learning outcomes. Finally, extending research into other educational contexts - such as secondary schools or non-formal settings like Sunday school - would broaden the applicability of the findings. The implementation of the mind mapping model in CRE learning demonstrates significant potential for further development. Beyond serving as a visual aid, it can be positioned as a holistic pedagogical approach that not only deepens students' understanding but also nurtures their faith and shapes their Christian way of life.

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