

Utilizing Toraja Culture To Address The Demands Of Mathematics Education In The 21st Century

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ABSTRACT

Meeting the challenges and competition in 21st-century education involves the cultivation of learners capable of navigating an increasingly globalized world. This necessitates the development of critical, independent, and disciplined thinking skills. Contemporary education goes beyond enhancing cognitive, attitudinal, and psychomotor abilities; it centers on learning frameworks encompassing Critical Thinking and Problem Solving, Communication, Creativity, and Collaboration Skills. Toraja culture has gained global recognition through its distinct elements such as ma'parapa, ma'kombongan kalua', mantaa, and didosa. This research seeks to explore how school culture can be integrated to address the challenges of 21st-century mathematics education. The study, conducted qualitatively, employed interviews and open questionnaires for data collection. The findings reveal that Toraja culture, particularly ma'parapa, ma'kombongan kalua', mantaa, and didosa, embodies cultural values encompassing moral, practical social, educational, and belief values. These values can be seamlessly integrated into classroom mathematics instruction to address the demands of 21st-century mathematics learning, particularly in terms of fostering critical, independent, and disciplined thinking.

Keywords: Toraja culture, learning mathematics, 21st century

1. INTRODUCTION

The challenges and competition in 21st-century education have shifted away from solely assessing students' academic prowess. Instead, the focus has expanded to include intellectual, emotional, cooperative, moral, and ethical development. Addressing these challenges demands critical thinking, independence, and discipline. In essence, 21st-century education goes beyond enhancing cognitive, affective, and psychomotor skills and centers on a framework encompassing Critical Thinking and Problem Solving, Communication, Creativity, and Collaboration Skills (Bernie Trilling, 2009). This framework aims to equip students with adaptability, initiative, social and cultural acumen, productivity, accountability, and leadership qualities for their future careers and lives.

Attaining these competencies is a complex task, particularly in remote, underserved, and developing regions, which face unique learning challenges. One such challenge involves developing a learning model that does not rely on technology (Chasanah, Nasrulloh, & Darmawan, 2020; Syahputra, 2018). There is a pressing need for research to devise region-specific learning strategies that generate innovative teaching ideas tailored to local school and community needs. Additionally, cultural studies must be conducted to align learning activities with the four core principles of 21st-century learning: (1) student-centered learning; (2) collaborative learning; (3) real-world application of learning; and (4) integration of schools with communities (Rahadian, 2018; Rahayu, Iskandar, & Abidin, 2022; Tamil, n.d.2019).

In the context of mathematics education, some educators have fallen short of meeting the standards outlined in Permendikbud No. 22 of 2016, specifically regarding the process standards for primary and secondary education (Chasanah et al., 2020). Mathematics instruction often follows a monotonous pattern, beginning with assignment review, introducing new material, and concluding

with more assignments. This approach, characterized by monotony, can disengage and harm students' interests. Furthermore, students require improved critical thinking skills, encompassing problem identification, connection, evaluation, analysis, and real-world problem-solving (Irvine, 2020; Sunzuma & Maharaj, 2021; Tinungki, 2015).

Initial observations highlight various shortcomings, including difficulties in aligning learning materials with content standards and core competencies, challenges in connecting learning objectives and processes with classroom activities, and an overreliance on lectures and group-based practice questions. Additionally, external learning models are often applied in mathematics instruction. Therefore, it is imperative to develop a culturally rooted learning model that addresses the evolving demands of education, focusing on intellectual, emotional, cooperative, moral, and ethical dimensions (Bishop, 2002; Civil, 2002; Knijnik, 2002; Owens, 2014).

Toraja culture, with its global recognition and unique elements like solo signs, tuka signs, Tongkonan traditional houses, mangrara, ma'bua, ma'parapa, ma'kombongan kalua', mantaa, and didosa, offers a potential solution to contemporary learning challenges. These challenges encompass fostering creativity and innovation, promoting collaboration, honing communication skills, and developing critical thinking and problem-solving abilities. Additionally, Toraja culture can address the need for learning strategies tailored to regional conditions, the generation of creative teaching ideas, bridging the gap between students and their environment, and integrating culture into mathematics education in schools (Knijnik, 2002; Prieto, Claeys, & González, 2015).

2. METHOD

This research employs the methodology of a literature review as its primary approach. Data collection for this study is sourced from various outlets, including scholarly journals, scientific articles, and literature reviews that encompass Toraja cultures. The data analysis process is carried out systematically, commencing with the selection of research materials that are the most relevant and significant. The key steps in the data analysis process involve identifying relevant sources, extracting essential information related to the research problem, systematically recording this information with proper citations and references, and organizing and categorizing the extracted data based on themes and their relevance to the research objectives. Furthermore, the collected information and analysis are employed to support the arguments and conclusions drawn in this research. In summary, a literature review serves as a valuable research methodology for collating and analyzing existing knowledge and scholarship on the integration of Toraja culture into education to address the challenges of 21st-century learning.

3. RESULTS AND DISCUSSION

Values Embodied In Toraja Culture

a. Moral Values in the Ma'parapa Text

The Ma'parapa Text embodies a moral value of acting with integrity, honesty, fairness, and civility, aligning with moral and ethical standards. Within this text, moral values are exemplified through politeness, humility, and gratitude. Politeness, in particular, is evident in the daily behavior of the Toraja people. It is reflected in their courteous language and their ability to calm the audience during events through polite expressions. The polite words spoken by the Tominna people serve to create a tranquil atmosphere and ensure the smooth progress of events (Sari, 2017:10).

b. Social Value

Social values in Ma'parapa are reflected in attitudes of care and social solidarity. Tominna's caring attitude towards the audience is a clear social value. Their choice of words demonstrates genuine concern for those present. This spirit of care is visible when families, "handai taulan," and other community members come together for events to pray for safety and well-being.

The social solidarity exhibited by Tominna reflects sympathy, a sense of shared interests, and a cooperative spirit among members (Sande, 1997, p. 26; Sari, 2017, p. 15).

c. Cultural Values

The Ma'parapa Text underscores the importance of respecting fellow human beings through the use of the word "tabe'." This term, which signifies respect for others, is not unique to the Toraja community but is widely used in various regions as a symbol of cultural respect for fellow humans. It signifies the preservation of cultural values and serves as an example of how Toraja customs promote respect for others (Sande, 1997).

d. Confidence Value

The value of belief is an underlying theme in the Ma'parapa Text, as it offers guidance for Toraja people's lives. The Ma'parapa Text, as a traditional literary work, imparts educational values that can positively influence individuals, helping them distinguish between right and wrong actions. It serves as a medium for teaching and nurturing individuals, shaping their behavior (Sari, 2017).

Ma'Kombongan Culture

a. Moral Values

Within Ma'kombongan, there is always a leader, often an elder, responsible for ensuring that all participants can express their opinions and advice during conflicts without causing offense. This practice embodies the moral value of mutual respect among Ma'kombongan participants. The leaders ensure harmony and mutual respect among community members during Ma'kombongan activities (Situru & Tulak, 2021, p. 13; Embankment, 2022, p. 10).

b. Practical Social Value

Ma'kombongan activities are convened when there are issues or conflicts within the community. Deliberation is the key approach used to resolve problems collectively. These gatherings serve as forums for practical problem-solving and conflict resolution in society. Kara'pasan tondok, an integral part of Ma'kombongan, emphasizes values such as peace, harmony, mutual respect, unity, kinship, and togetherness among community members in indigenous territories (Situru & Tulak, 2021).

Mantaa Culture

a. Moral Values

Mantaa culture highlights the significance of sharing as an expression of fellowship. This practice is a modern representation of fellowship, often observed at weddings in both urban and rural areas. People exchange gifts to symbolize their close relationships and sense of belonging. For the Toraja people, this act of giving signifies a deep bond, and it is not seen as a mere transaction. Rejecting such gestures would be considered disrespectful to the fellowship (Mangolo & Kristanto, 2018).

b. Practical Social Value

Mantaa culture involves a structured division of meat, with the oldest members receiving their portions first, followed by others sorted by age, descent, and property. Some regions also include provisions for slaves to receive a share. The division of meat in Mantaa culture reflects social stratification, with individuals' positions in society determining their portions. This ceremony aims to reinforce social hierarchies, whether someone is a nobleman, commoner, or former slave (Volkman, 1985).

Didosa Culture

a. Moral Values

In Didosa culture, customary sanctions are applied to individuals who commit violations. Offenders are required to admit their mistakes and solemnly promise not to repeat them. Additionally, the principle of "pai'pinni batu mapipang," which translates to "forgiven and forgotten," is upheld. This principle signifies that, when someone commits a transgression, they must genuinely commit to not repeating it. Customary offenders and community members also adopt "pai'pinni batu mapipang," meaning they forgive and forget the mistakes made, fostering reconciliation and harmony (Hermonita, 2004; Limbong, 2021).

b. Social Value

Didosa culture involves customary sanctions, such as offering sacrificial animals like chickens, pigs, or buffaloes, as punishment for individuals who violate customary norms. This practice reinforces the idea that even those who commit violations must face consequences in line with the severity of their actions. The application of these sanctions serves as a form of legal protection for indigenous people and deters potential violators, contributing to peace and harmony within indigenous communities (Hermonita, 2004; Limbong, 2021).

4. CONCLUSION

The results of the study show that the culture of the tower can answer the challenges of the 21st century, especially the challenge of critical, independent, disciplined thinking. The culture of ma'parapa, ma'kombongan kalua', mantaa and didosa contains cultural values that are moral values, practical social values, educational values and belief values that can be integrated in classroom mathematics learning and answer the challenges of learning mathematics for 21st century.

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