

## Cultural Aspects of Character Education found in Comic "Pelayaran Ke Dusung": An Ecranization through the Application of Augmented Reality

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### Abstract

*This research examines the cultural aspects of character education portrayed in Firdaus' comic, "Pelayaran Ke Dusung," which was nominated for a festival award. This comic has undergone the process of screen adaptation (ekranisasi) from the Epic I La Galigo with the main character, Sawerigading. To bring this comic closer to readers, it can be accessed through an Augmented Reality (AR) application. This approach aims to preserve the moral character values contained in the Epic I La Galigo. The objectives of this research are 1) to actualize thematic stories with local content that are relevant to actual life, and 2) to preserve the cultural values found in the comic "Pelayaran ke Dusung," which is popular among Gen Z. The results of this research show that comics with reflections or guidance on how the taught values can be implemented in real life provide a strong message, empowering readers to practice the values of Sipakatau, Sipakalebbi, and Sipakainge in their daily lives. In addition to developing AR-based comics, this research also conducts a comprehensive evaluation of the effectiveness of utilizing AR for comics. This not only focuses on technical aspects such as visual quality and interactivity but also on its impact on understanding and internalizing the traditional Bugis character values among the younger generation. The implications of this research are expected to provide empirical evidence regarding the potential of AR in bringing traditional values to life and making it more relevant and engaging for the younger generation.*

**Keywords:** *Cultural aspects, character education, comic, ecranization, augmented reality.*

### Introduction

Research on character education generally revolves around topics related to the formal education domain in schools. However, this study explores the values of goodness extracted from the Lagaligo literary work, which was then adapted into a comic designed for millennials, who are often seen as drifting away from the local values present in society.

To enhance the comic's appeal to readers, it has been developed using Augmented Reality (AR) technology, utilizing elements like cameras, sensors, output devices, and artificial intelligence to create a more immersive and interactive experience. These components function to collect environmental data and user interactions. The available data is processed to determine the placement location of virtual objects. The working principle is that a calibrated camera automatically detects the provided marker, and after recognizing and marking the marker pattern, the webcam compares whether the marker matches the existing database.

Character education, as the focus of this research, aims to shape a young generation that is integral, moral, and cultured. In Indonesia, particularly among the Bugis community, traditional character values such as Sipakatau (mutual respect), Sipakalebbi (mutual appreciation), and Sipakainge (mutual reminders) are an essential part of cultural heritage, especially within the Bugis and Makassar communities. These values not only teach the importance of maintaining harmonious social relationships, upholding human dignity, and supporting each other in goodness, but also form a strong cultural identity (Mallombasi & Rahim, 2012; Rahman et al., 2022). Sipakatau, for example, encourages individuals to treat others with respect and dignity, regardless of social status or background. Meanwhile, Sipakalebbi emphasizes the importance of appreciating differences, avoiding conflict, and prioritizing deliberation in problem-solving. Sipakainge highlights the importance of mutually reminding each other in goodness and truth and being brave enough to provide constructive criticism for mutual progress.

However, amidst the currents of modernization and globalization, the transmission of these traditional character values faces challenges. The younger generation tends to be less interested in conventional

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learning methods, which are often abstract and less relevant to daily lives. This is in line with research conducted by Yunus et al. (2021), which shows that conventional character education methods are often less appealing to the younger generation. Furthermore, exposure to popular culture and individualistic values from outside can erode the understanding and appreciation of traditional values (Cruz et al., 2024). Therefore, innovative approaches are needed to bridge the gap between traditional values and the preferences of the younger generation, as emphasized in research by Hermes (2023). These approaches need to consider more engaging, interactive, and relevant ways to the lives of today's younger generation.

#### *Screen Adaptation (Ekranisasi) of the Comic "Pelayaran Ke Dusung"*

Screen adaptation (ecranization) is a creative process that transforms literary works, such as novels, stories, or dramas, into various formats including film, television, comics, and graphic stories (Adinda et al., 2021). This process serves specific purposes, such as reaching new audiences, reimagining classic tales, or exploring different artistic mediums. The term originates from the English word "screenplay," which means a script or scenario for a film or television show (Adinda et al., 2023).

The literary work "Pelayaran ke Dusung" has been adapted from its original form into a comic format. In this context, "Dusung" is a specific place name within the story. This comic adaptation is now used for educational purposes, particularly in the area of character education, which is highly favored among children.

The comic "Pelayaran ke Dusung" highlights the story of Sawerigading, the main character in the La Galigo epic, which is rich in the values of Sipakatau (mutual respect), Sipakalebbi (mutual appreciation), and Sipakainge (mutual reminders). Through the depiction of Sawerigading's interactions with other characters, as well as the conflicts and resolutions he faces, this comic implicitly conveys moral messages about the importance of respecting others, appreciating differences, and mutually reminding each other in goodness. The integration of AR allows these values to be presented more vividly and attractively, for instance, through animations showing how Sawerigading respects the elderly, or through interactive games that encourage readers to apply the Trisipaka values in everyday situations.

In addition to developing AR-based comics, this research will also conduct a comprehensive evaluation of its effectiveness. This evaluation will not only focus on technical aspects such as visual quality and interactivity but also on its impact on understanding and internalizing traditional Bugis character values among the younger generation. Therefore, this research is expected to make a significant contribution to the development of innovative and meaningful Augmented Reality-based learning models in the context of character education. The results of this research are also expected to provide empirical evidence on the potential of AR in bringing traditional values to life and making it more relevant and engaging for the younger generation, in line with Boboc's (2022) recommendations on the importance of integrating local wisdom in character education.

#### *Augmented Reality*

Augmented Reality (AR) is a tool that can be used to present information or experiences in a dynamic and engaging way. Augmented Reality (AR) offers a promising strategy to address the challenges of transmitting traditional character values by integrating this technology into educational media, making the learning process more dynamic and engaging. AR, with its ability to combine the real and virtual worlds, can create a more interactive, engaging, and meaningful learning experience. Several studies have highlighted the potential of AR in education, demonstrating its effectiveness in enhancing learning motivation, concept understanding, and information retention (Harrison, 2024; Yuliani & Setiawan, 2024). Building upon this research, Andriani et al. (2022) specifically found that integrating AR into language learning can significantly increase students' motivation and participation.

The potential of AR in character education is also supported by research showing that comic media and AR have been proven valid and effective in enhancing students' cognitive abilities and character (Damayanti, 2021). Comics, with the visual and narrative appeal can be an effective medium for conveying traditional character values. By adding AR elements, comics can become more interactive and engaging, thus increasing students' interest and involvement in the learning process. For example, AR comics can feature characters that can move and talk, 3D objects that can be rotated and observed from various angles, and interactive games and quizzes that can test students' understanding.

However, although the potential of AR in character education has been recognized, research specifically examining the use of AR in traditional character education, particularly related to the values of Sipakatau, Sipakalebbi, and Sipakainge, is still limited. While several studies have examined the potential of Augmented Reality (AR) in education (Harrison, 2024; Yuliani & Setiawan, 2024), limited research has explored how AR can be leveraged to effectively convey traditional character values to younger generations, particularly in the context of comics that integrate local wisdom, such as the Trisipaka values (Andriani et al., 2022). This identified research gap highlights the need for further investigation, especially considering the crucial role that traditional values play in shaping the character development of young people

## Literature Review

Character education is a crucial foundation in shaping individuals who are integral, moral, and cultured. In Indonesia, traditional character values such as Sipakatau (mutual respect), Sipakalebbi (mutual appreciation), and Sipakainge (mutual reminders) have long been an integral part of the social order, especially within the Bugis culture. These noble values not only teach the importance of maintaining harmonious social relationships and upholding human dignity but also shape a strong and solid cultural identity.

To preserve and instill these traditional character values in the younger generation, innovative approaches that can attract the interest and attention are needed. One promising approach is the utilization of Augmented Reality (AR) technology in educational comics. AR technology, with its ability to provide interactive and immersive learning experiences, it has the potential to enhance student engagement, concept understanding, and internalization of character values. Through the integration of visual, audio, and interactive elements, AR comics can bring stories and the values contained within it to life, making it more relevant and engaging for the younger generation.

From a cultural perspective, this research comprehensively discusses the importance of character education and the values of Sipakatau, Sipakalebbi, and Sipakainge in the context of education in Indonesia. Additionally, it examined the use of AR technology in education, the role of comics as a learning medium, and the potential integration of cultural values in AR comics. Through an in-depth thematic analysis of relevant literature, this literature review aims to provide a comprehensive understanding of how AR technology and educational comics can be effectively used to teach character education, particularly the values of Sipakatau, Sipakalebbi, and Sipakainge, and to promote Indonesian cultural values in an engaging and interactive way.

### *Character Education and Cultural Values*

Character education is a fundamental aspect of the education system in Indonesia, it aimed at shaping individuals who are not only intellectually intelligent but also possess strong morals and ethics (Dalyan et al., 2024). This aligns with the definition of education put forth by Masnur (2022), which is a process of forming fundamental skills, both intellectually and emotionally, towards nature and fellow humans. In the context of Bugis culture, this character education is closely related to the values of Sipakatau, Sipakalebbi, and Sipakainge. These three values are essential foundations in shaping individuals of noble character, who respect, appreciate, and remind each other in goodness (Mallombasi & Rahim, 2012; Akhmar et al., 2023; Rahman et al., 2023).

Previous studies have shown that the values of Sipakatau, Sipakalebbi, and Sipakainge play a significant role in shaping moral and ethical behavior in students. For instance, research by Halima et al. (2021) demonstrated that the Trisipaka values (a combination of Sipakatau, Sipakalebbi, and Sipakainge) can encourage individuals to act as bystanders who defend victims of bullying and become liked figures among peers. Additionally, research by Yunus et al. (2021) emphasized that local wisdom values such as Sipakatau, Sipakalebbi, and Sipakainge align with the pluralist values that grow and develop in Indonesia. These values are reflected in the Bugis proverb "Mali siparappe, rebba sipatokkong, malilu sipakainge," which means "Help those who are swept away, assist those who fall, and remind those who err."

However, teaching these traditional character values is not always easy, especially in facing the challenges of modern times. Children and adolescents today grow up in an environment rich in information and influences from various cultures, which sometimes conflict with traditional values. Therefore, a creative

and innovative approach is needed to convey these values so that they remain relevant and appealing to the younger generation. One promising approach is through the integration of technology in education, particularly Augmented Reality (AR) technology.

#### *Augmented Reality in Education*

Augmented Reality (AR) has emerged as a promising technology in the field of education, offering innovative new ways to deliver learning materials and enhance the student learning experience. AR allows for the merging of the real and virtual worlds, creating an interactive and immersive learning environment. This aligns with the definition of AR put forth by Nugraha et al. (2022), who describe it as the application of merging the real and virtual worlds in two-dimensional or three-dimensional forms projected into a real environment simultaneously.

One of the main advantages of AR in education is the increased student engagement. By presenting visual, audio, and interactive elements, AR can stimulate students' curiosity and motivation to learn. This is supported by research by Andriani et al. (2022), which shows that the use of Android-based AR media can enhance students' critical thinking skills. Additionally, AR enables more interactive learning, where students can directly interact with learning materials, manipulate virtual objects, and explore the learning environment independently. This can improve concept understanding and information retention, as demonstrated in Poliak et al., (2023) & Tenrisanna et al., (2024) research on the analysis and design of spatial recognition systems using AR.

Other studies have also shown the effectiveness of AR in various educational settings. For example, AR has been used to teach complex subjects such as anatomy and physics, where students can visualize the structures of the human body or the principles of physics in three dimensions. AR has also been applied in language learning, where students can practice conversations with virtual characters and receive immediate feedback. Additionally, AR has been used in storytelling, allowing students to bring stories and characters to life through immersive experiences.

#### *Educational Comics as Media*

Comics have long been used as an effective educational medium, especially in capturing interest and enhancing students' understanding. The strong visual appeal and narrative power of comics can simplify complex concepts, making it more easily understandable for students of various ages and backgrounds. This is supported by Sharma and Kukreja (2024), who states that comics are a form of cartoon capable of portraying characters and narrating a story in a sequence closely linked with images, designed to entertain learners.

Several studies have proven the benefits of using comics in education. Comics can increase student learning motivation due to entertaining and digestible nature (Zakaria et al., 2023). Engaging visuals and a flowing storyline can make the learning process more enjoyable and less boring. Moreover, comics can enhance students' understanding of learning materials. The presentation of information in integrated image and text formats can help students visualize abstract concepts and connect it to real-life experiences.

Beyond being just a learning tool, comics also have a unique ability to convey cultural and moral lessons. Through characters and storylines, comics can teach values such as honesty, courage, cooperation, and tolerance. This aligns with Sugihastuti's (1998) view that comics can influence readers to emulate good characters rather than villains. In this context, comics serve not only as a learning medium but also as a means of character formation.

#### *Integration of Cultural Values in Comic*

The integration of Augmented Reality (AR) technology in educational comics offers great potential to enhance the effectiveness of teaching cultural values. AR can create immersive and interactive learning experiences where students not only read or view static images but also interact with characters, objects, and environments within the story. This can strengthen the understanding and internalization of cultural values being conveyed.

Research by Firdaus et al. (2022) shows that AR-based comics can be an effective means of conveying Bugis cultural values such as Sipakatau, Sipakalebbi, and Sipakainge. In this study, the AR comic "Pelayaran ke Dusung" was used as a learning tool in a school in South Sulawesi and demonstrated positive outcomes in students' understanding of these values. This AR comic not only presents the story visually but also allows students to interact with characters, listen to dialogues in Bugis language, and engage in educational games related to trisipaka values (respect, appreciation, and reminder).

The potential of AR in reinforcing character education is also supported by Aruna et al. (2024), who state that digital comics, including AR-based comics, can incorporate various interactive elements such as games, animations, and films, making it easier for readers to follow and enjoy the story. This can increase student engagement in the learning process and make the cultural values being conveyed more appealing and memorable.

Furthermore, AR can visualize abstract concepts related to cultural values, such as the value of Sipakatau, which teaches about respecting others. Through AR, this concept can be visualized in the form of animations or simulations showing how characters in the story interact respectfully with people who are older, peers, or younger. Thus, AR helps students better understand and appreciate the cultural values embedded in the story.

#### *Case Studies and Practical Applications*

The study by Firdaus et al. (2022) entitled "Dissemination of Bugis Cultural Values (Sipakatau, Sipakalebbi, and Sipakainge) in La Galigo through Augmented Reality-Based Comics at SDN Pannyikkokang 1" is an example of the implementation of AR in relevant educational comics. This research not only developed the AR comic "Pelayaran ke Dusung," rich in Bugis cultural values, but also applied it in elementary school teaching activities. The research findings indicate that this AR comic successfully enhanced students' understanding of the values of Sipakatau, Sipakalebbi, and Sipakainge.

Moreover, this study also reveals that the use of AR comics can increase student engagement in the learning process. Students become more enthusiastic and interested in learning about Bugis cultural values through interactive and immersive learning experiences. This demonstrates that AR comics have significant potential as effective and enjoyable learning media.

However, the study also identifies several practical challenges in implementing AR comics in schools. These challenges include limited access to technology devices, the need for teacher training in AR technology usage, and the relatively high costs of developing AR comics. Therefore, efforts are needed to address these challenges so that AR comics can be implemented more widely and sustainably.

#### *The Objective of the Research*

Based on several points outlined in this research formulation, the research objectives are formulated as follows: 1) to actualize thematic local content narratives relevant to current life, and 2) to preserve the cultural values found in the comic "Pelayaran ke Dusung" beloved by Z Generation. Both objectives can be achieved through the strategy of applying Augmented Reality in the comic "Pelayaran ke Dusung," which aligns with the preferences of Z Generation to obtain information through Android and gadgets. With this strategy, cultural heritage will remain preserved within Bugis society.

It is certain that this research aims to fill the research gap identified previously by specifically developing and evaluating the Augmented Reality (AR) comic titled "Pelayaran ke Dusung." This comic was chosen as a medium due to its ability to deliver engaging narratives and captivating visuals, especially for the younger generation. By integrating AR technology, this comic not only presents stories in a static manner but also brings characters and story settings to life through interactive elements.

### **Research Methodology**

This study employs a descriptive qualitative method with a content analysis approach to describe the character education values in the comic "Pelayaran ke Dusung" (Sugiyono, 2020). The research aims to identify and explain the roles of characters and the character values of Sipakatau, Sipakalebbi, and Sipakainge within the comic.

The primary data for this research is derived from the comic "Pelayaran ke Dusung" by Firdaus et al., while secondary data is obtained from documents, observations, and relevant previous studies. The study was conducted over three months, from June to August 2023, in the Bugis Ethnic community area of South Sulawesi, Indonesia.

Data collection involved literature review and analysis of character value indicators in the comic. The literature review included gathering information from various written sources such as books, journals, and related articles. The character value indicators in the comic were analyzed based on a table of indicators that include the values of Sipakatau, Sipakalebbi, and Sipakainge along with their sentence indicators.

**Table 1.** Indicators of Value of Character in the Comic.

No	Value of Character	Indicator
1	Sipakatau	Containing words indicating attitudes and behaviors that show respect towards elders, peers, and younger individuals. Describing attitudes and behaviors that humanize interactions among people. Including words indicating attitudes and behaviors that honor both human beings towards God and everything in the universe.
2	Sipakalebbi	Describing words indicating attitudes and behaviors of mutual respect among human beings. Including words that show appreciation towards others. Describing attitudes and behaviors of mutual assistance towards both humans and other living beings.
3	Sipakainge	Including words that indicate reminding others. Including words that show behavior of correcting others' mistakes.

Data analysis was conducted using thematic analysis, which involved carefully reading the comic and noting the character values that emerged in each role. Subsequently, the collected data were qualitatively analyzed using steps of data reduction, data display, and data verification.

## Research Findings and Discussions

In this section, the discussion covers three main aspects: 1) The Role of Main Characters in Character Education, 2) Values of Character Education in the Comic "Pelayaran ke Dusung," and 3) The Function of Augmented Reality in the Comic "Pelayaran ke Dusung."

### *The Role of Figures in Character Education*

The comic "Pelayaran ke Dusung" features several characters who play important roles in conveying the character education values of Sipakatau, Sipakalebbi, and Sipakainge. Sawerigading, as the protagonist, is the main character who embodies these values through bravery, steadfastness, and wisdom. Batara Lattu, Sawerigading's father, serves as a wise and loving supporting figure, providing advice and support to his son. La Sinilele and La Pananrang, Sawerigading's cousins, act as advisers and loyal supporters, always reminding and accompanying Sawerigading on his journey. Through the interaction and dynamics among these characters, the comic successfully depicts how the values of Sipakatau, Sipakalebbi, and Sipakainge are internalized and applied in daily life.

#### *a. The Role of Sawerigading Characters in Character Education*

Sawerigading, as the main character in the comic "Pelayaran ke Dusung," is the ideal representation of Bugis character values Sipakatau, Sipakalebbi, and Sipakainge. His bravery, steadfastness, intelligence, and wisdom serve as an exemplary embodiment of these values.

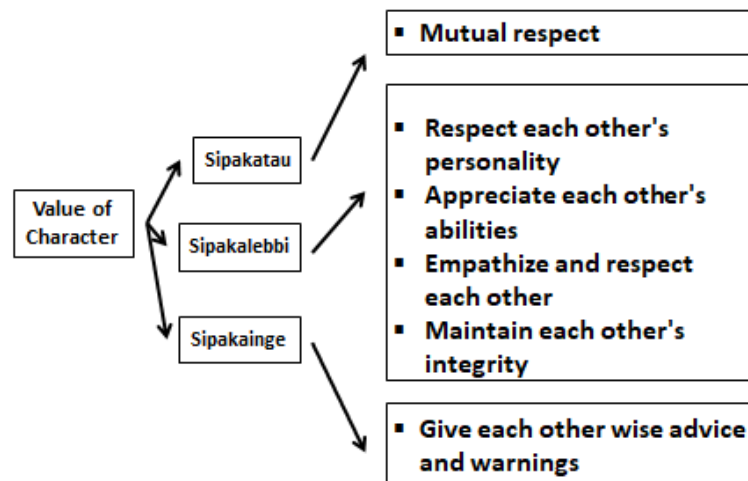


Figure 1. Value of Character in Buginese Culture.

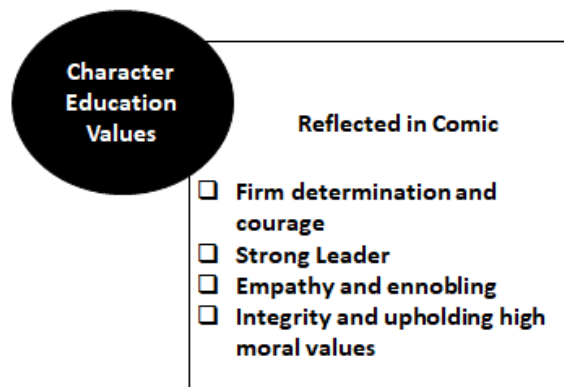
Table 2.

Sipakalebbi (Respecting)	Sawerigading shows respect towards others, especially towards his parents and his wife. He declined Opunna Luwuq's offer to stay overnight in the palace in order to allocate the night to his wives. He also respected his father's decision, Batara Lattu, and acknowledged the abilities of his cousins, La Pananrang and La Sinilele, by seeking their help in preparing for the journey.
Sipakatau (Appreciating)	Sawerigading always asks for permission and bids farewell to his parents before embarking on the journey to Dusung, showing his respect for them. He also respects the culture of Dusung by following the advice of La Pananrang and La Sinilele to adapt to local customs.
Sipakalebbi (Appreciating Others' Abilities)	Sawerigading demonstrates a respect for the abilities of others by seeking help from La Pananrang and La Sinilele in preparing the boat and travel supplies. He also shows respect towards every girl who wishes to marry him in a polite and wise manner.
Sipakalebbi (Empathy and Honoring)	Sawerigading shows empathy and care towards others, such as when he helps an elderly woman in need. He also honors others by providing assistance respectfully.
Sipakalebbi (Integrity)	Sawerigading is praised and honored by his community for his integrity and leadership. He leads wisely and does not use his power to oppress others.
Sipakainge (Giving Advice and Wise Counsel)	Sawerigading shows wisdom in making decisions, such as when he decides to journey to Dusung and chooses his cousins to accompany him. He also gives wise advice to others, including the girls who wish to marry him.

Through the character of Sawerigading, the comic "Pelayaran ke Dusung" successfully portrays how the values of Sipakatau, Sipakalebbi, and Sipakainge can be realized in actual actions. This provides a good example for readers, especially the younger generation, on how to behave and act in daily life.

#### *The Role of the Character Batara Lattu (Sawerigading's Father) in Character Education*

Batara Lattu, as Sawerigading's father, plays a crucial role in shaping his son's character according to Bugis cultural values. In the comic "Pelayaran ke Dusung," Batara Lattu is portrayed as a wise authority figure who protects and guides Sawerigading. He not only provides valuable advice but also exhibits attitudes that reflect the values of Sipakalebbi.



**Figure 2.** Character Education Values in the Comic.

### 1) *Sipakalebbi (Appreciating the Abilities of Son)*

Batara Lattu shows appreciation for his son's abilities by granting Sawerigading permission to sail to Dusung, although initially concerned for his safety. This decision reflects Batara Lattu's trust in Sawerigading's abilities and independence. It aligns with the value of Sipakalebbi in Bugis society, which respects individual autonomy and decision-making capabilities.

### 2) *Sipakalebbi (Honoring Son)*

Batara Lattu also shows the attitude of honoring his son by providing emotional and material support. He gave Sawerigading a sacred chicken as provisions for the cockfighting event in Dusung. In addition, Batara Lattu also gave advice and guidance to Sawerigading before he departed, showing a father's care and affection for his son. This is in line with the value of "Sipakalebbi," which emphasizes the importance of respecting and honoring others, especially family members.

Batara Lattu's role as a wise and loving father figure in the comic "Pelayaran ke Dusung" not only enriches the story but also provides a concrete example of how the values of "Sipakalebbi" can be applied in parent-child relationships.

### *The Role of La Sinilele Characters in Character Education*

La Sinilele, Sawerigading's cousin, plays a significant role in supporting and accompanying Sawerigading on his journey to Dusung. La Sinilele's character reflects the values of Sipakatau and Sipakainge in Bugis culture.

### 1) *Sipakainge (Reminding and Supporting Each Other)*

La Sinilele became a wise advisor figure for Sawerigading. He provided advice and support, especially when Sawerigading felt sad because he was not allowed to go to Sama and Maluku. La Sinilele also reminded Sawerigading not to violate divine taboos by leaving food that had been prepared. Apart from that, he also provided information about Dusung, the destination of their voyage, showing his concern and support for Sawerigading's plans.

### 2) *Sipakatau (Mutual Respect)*

La Sinilele shows mutual respect towards Sawerigading and his family. He asked Sawerigading's parents for permission before taking Sawerigading sailing, showing his respect for parental authority. He also showed high loyalty and trust in Sawerigading, so he was trusted to accompany and look after Sawerigading during the voyage.

La Sinilele's role as a loyal advisor and supporter in the comic "Pelayaran ke Dusung" not only strengthens Sawerigading's character, but also provides a concrete example of how the values of Sipakatau and Sipakainge can be applied in friendship and familial relationships.

### *The Role of the La Pananrang Character in Character Education*



La Pananrang, as Sawerigading's cousin and one of the important characters in the comic "Pelayaran ke Dusung", acts as a wise advisor and supporter. The characters reflect the Sipakainge values in Bugis culture, namely the attitude of reminding each other and supporting each other.

#### 1) *Sipakainge (Reminding Each Other)*

La Pananrang shows attention and concern for Sawerigading and La Sinilele by reminding them to respect Dusung culture. This reflects Sipakainge's values in the context of respecting other people's customs and culture.

#### 2) *Sipakainge (Providing Advice and Support)*

La Pananrang provided advice and support to Sawerigading, especially when Sawerigading was forbidden by his father to sail. He not only supported Batara Lattu's decision, but also provided information about Dusung that could raise Sawerigading's enthusiasm. This shows La Pananrang's role as a wise and supportive advisor.

La Pananrang's role as a wise advisor and supporter in the comic "Pelayaran ke Dusung" not only enriches the dynamics of the story, but also provides a concrete example of how Sipakainge values can be applied in social relations. He pointed out that reminding and supporting each other is an important part of maintaining harmonious relationships and achieving common goals.

#### *The value of character education in Sipakatau, Sipakalebbi, and Sipakainge*

Character education is a very important aspect of self-development that goes beyond just academic knowledge. In the comic "Pelayaran ke Dusung", character education can be one of the main themes raised. The classification of character education in Sipakatau, Sipakalebbi, and Sipakainge.

#### 1) *Sipakatau*

The Sipakatau value, which morphologically comes from the words "si" (mutual) and "tau" (human), contains a deep meaning about humanizing each other or respecting fellow humans, even respecting all of God's creation (Nur, 2008). This value is reflected in various aspects of the life of the Bugis people, including in the character of Sawerigading in the comic "Pelayaran ke Dusung".

##### a) *Courage and Firmness*

Sipakatau is reflected in Sawerigading's courage and determination in facing challenges. His desire to sail to Dusung, despite his parents' opposition, shows the courage to make decisions and face risks. His determination can be seen in his persistence in achieving his goals, even though he faces various obstacles. This is in line with Sipakatau values which teach the importance of having courage and steadfastness in facing life's challenges, as reflected in Bugis culture which values b. leaders who are brave and steadfast in facing risks for the benefit of society.

##### b) *Strong Leader*

Sipakatau is also reflected in Sawerigading's strong leadership spirit. He is able to make the right and wise decisions, such as when he decided to sail to Dusung and chose his cousin as his companion. His leadership can be seen in his ability to organize and lead trips well, in accordance with Sipakatau values which emphasize the importance of strong and responsible leadership.

##### c) *Empathy*

Sawerigading shows a high level of empathy towards other people, in accordance with the Sipakatau values which teach the importance of respecting each other and understanding other people's feelings. He cares about the feelings and needs of the people around him, such as when helping an old grandmother. Sawerigading's empathy is also reflected in his concern for the feelings of his cousins, La Sinilele and La Pananrang.

##### d) *Integrity and Moral Leadership*

Sipakatau is also reflected in Sawerigading's integrity and moral leadership. He upholds moral principles, is not easily tempted, and always tries to act based on the values he believes in. His moral leadership can

be seen in leading the trip to Dusung fairly and wisely. This is in accordance with Sipakatau values which teach the importance of having high integrity and morality, as leaders in Bugis culture are respected for their integrity and morality, being role models for society.

The comic "Pelayaran ke Dusung" succeeds in depicting Sipakatau values in the character Sawerigading, providing concrete examples of how these values are applied in everyday life, according to the Bugis cultural context.

## 2) *Sipakalebbi*

Sipakalebbi, which morphologically means "mutual respect" or "mutual praise", is an important value in Bugis culture which emphasizes the importance of maintaining harmony and avoiding conflict (Nur, 2008). In the comic "Pelayaran ke Dusung", this value is reflected in various aspects of the characters and actions of the characters, especially Sawerigading and Batara Lattu.

### a) *Skills and Assertiveness*

Sipakalebbi is reflected in Sawerigading's skill and firmness as a leader. He is able to make the right and wise decisions, such as when he decided to sail to Dusung and chose his cousin as his companion. His firmness can be seen in leading the trip with full responsibility, in accordance with Sipakalebbi's values which respect individual abilities in making decisions and acting firmly but flexibly.

### b) *Appreciate*

Sawerigading's respectful attitude is clearly visible in his interactions with other people. He respects the decision of his father, Batara Lattu, even though he initially disagrees. He also appreciated his cousins' abilities by asking for their help in preparation for the trip. Apart from that, Sawerigading shows respect for the girls who want to marry him in a polite and tactful way. This reflects Sipakalebbi's values which emphasize the importance of respecting other people and maintaining harmony in social relationships.

### c) *Emotional Support*

Sipakalebbi is also reflected in the emotional support given by Batara Lattu to Sawerigading. Although initially worried, Batara Lattu finally allowed Sawerigading to sail to Dusung and provided full support. He also provided provisions in the form of a god's chicken as a form of material support. This shows that Sipakalebbi is not only about respecting other people's decisions, but also about providing needed emotional and material support.

### d) *Simplicity and Emotional Intelligence*

Sawerigading, although a king's son, displayed simplicity in his lifestyle and behavior. He is not arrogant or haughty, but humble and easy to get along with other people. Emotional intelligence can be seen in his ability to understand and manage emotions, both his own emotions and the emotions of others. This is in line with Sipakalebbi's values which emphasize the importance of simplicity, humility and the ability to manage emotions in maintaining harmonious social relationships.

### e) *Compassion and Empathy*

Sipakalebbi's values are also reflected in the compassion and empathy shown by Batara Lattu towards Sawerigading. He understood his son's desire to sail and finally allowed it, although with feelings of worry. Batara Lattu also provided advice and support to Sawerigading, showing the care and love of a father. This shows that Sipakalebbi also includes aspects of compassion and empathy in family relationships.

The comic "Pelayaran ke Dusung" succeeded in depicting various aspects of Sipakalebbi values in the characters and actions of the characters. This can be a valuable lesson for readers, especially the younger generation, about the importance of respecting, supporting and maintaining harmony in social relationships.

## 3) *Sipakainge*

Sipakainge, which morphologically means "reminding each other", is a fundamental value in Bugis culture which emphasizes the importance of respect, appreciation and openness towards other people (Czok et al., 2023). This value encourages the creation of harmonious and mutually supportive relationships in

society. In the comic "Pelayaran ke Dusung", Sipakainge is reflected in various aspects of the characters and actions of the characters, especially La Sinilele and La Pananrang.

*a) Cultural Heritage and Traditions*

Sipakainge is reflected in the attitude of La Sinilele and La Pananrang which uphold Bugis cultural heritage and traditions. They reminded Sawerigading to respect Dusung customs and emphasized the importance of maintaining family traditions. This shows that Sipakainge is not only about reminding each other of kindness, but also about preserving and passing on cultural values that have been passed down from generation to generation.

*b) Support*

La Sinilele and La Pananrang provided moral and emotional support to Sawerigading throughout his journey. They are good listeners, provide wise advice, and are always ready to help Sawerigading in facing various challenges. This attitude reflects Sipakainge's values which emphasize the importance of mutual support and assistance in achieving common goals.

*c) Knowledge and Remembering Skills*

La Sinilele and La Pananrang also demonstrated good knowledge and memory skills. They are able to remember and apply knowledge about Bugis traditions and culture in appropriate situations. For example, La Pananrang reminded Sawerigading about the importance of respecting Dusung customs. This shows that Sipakainge also includes aspects of knowledge and good memory, which are important in maintaining and passing on cultural values.

*d) Honesty, Actions and Words*

Sipakainge is also reflected in the honesty, actions and words of the characters. It always try to be honest and open in communication, and act in accordance with the values they adhere to. This can be seen in La Pananrang's attitude which supports Batara Lattu's decision to forbid Sawerigading from sailing, even though he also wants to accompany Sawerigading. This honesty and openness is an important part of Sipakainge which encourages the creation of honest and transparent relationships.

*e) Intelligence and Strategy*

Sipakainge is also reflected in the intelligence and strategy shown by La Sinilele and La Pananrang. They are able to provide wise advice and suggestions to Sawerigading, helping Sawerigading in making the right decisions. This intelligence and strategy are important in facing various challenges and achieving common goals.

*f) Inspiration and Example*

La Sinilele and La Pananrang are role models for Sawerigading in practicing Sipakainge values. They show an attitude of reminding each other, supporting each other, being honest and wise. This example can inspire readers, especially the younger generation, to apply Sipakainge values in their daily lives.

*g) Advisors and Supporters*

La Sinilele and La Pananrang acted as advisors and supporters for Sawerigading. They provide advice, moral support and practical assistance to Sawerigading in dealing with various situations. This role reflects Sipakainge's values which emphasize the importance of helping and supporting each other in achieving common goals. The comic "Pelayaran ke Dusung" succeeded in depicting the values of Sipakainge through the characters and actions of its characters. This can be a valuable lesson for readers about the importance of reminding each other, supporting each other, and maintaining harmony in social relationships.

*Function of the Augmented Reality in Comic "Pelayaran ke Dusung"*

The comic "Pelayaran ke Dusung" is engineered to be connected to Augmented Reality or AR so that local content comic stories can be of interest to the Gen Z community. Augmented Reality or AR is a technology that can create a real-time combination of digital content processed by a computer with the real world. Augmented Reality allows users to see projected 2D or 3D virtual objects as if they were in

the real world. Once again, this strategy is intended so that the Gen Z community can take an interest in local comic content stories which are starting to be abandoned by the younger generation.



**Figure 3.** The use of AR for Gadgets.

Source: <https://www.dicoding.com/blog>.

Augmented Reality or AR is a technology that is able to insert information into the virtual world and display it into the real world through aids such as computer webcams, cameras, and even special glasses.



**Figure 4.** One use of Augmented Reality.

Source: <https://www.dicoding.com/blog>.

With devices such as cellphones, special glasses, cameras, screens, webcams, and so on, they will function as output devices. in the form of videos, images, animations and 3D models that need to be used. Thus, users can see the results in artificial and natural light. One of the devices that supports Augmented Reality is as below.



**Figure 5.** One example of an Augmented Reality device.

Source: <https://www.dicoding.com/blog>.

**Devices that support AR use.** In this digital age, many modern AR devices will continue to develop. Examples include Google Glass or handheld devices. The following are categories of devices that support Augmented Reality as reported in the Decoding Blog (<https://www.dicoding.com/blog/apa-itu-augmented-reality-dan-contohnya/>) as follows:

**Mobile devices (smartphones and tablets).** This device is the most common and suitable for AR mobile apps. Starting from business, sports, games and social networks.

**Special AR devices.** A device specifically designed for better AR experiences. An example is the HUD (head-up display), which functions to send data with a transparent display to a display that the user can receive.

**AR glasses.** You must have heard of this device. Yes, like Google Glass, Laster See-Thru, Meta 2 Glasses, etc. What advantages? This device is capable of displaying notifications from your smartphone. Can help with the assembly sector, accessing content without holding hands, and so on.

**Virtual retinal displays (VRD).** This type of device produces images with a laser beam to the human eye. Aims to display bright (high contrast), high resolution images. This system is still being created for trial use (source: Decoding Blog, 2020).

The application of Augmented Reality to comics is a creative way to increase the readability of local comic content so that everyone can reap the benefits of character education, for example in the comic "Pelayaran ke Dusung". The following is an example of the application of Augmented Reality or AR which is now very popular;

1) *Game*



**Figure 6.** The use of AR in Online Game.

**Source:** <https://www.dicoding.com/blog>.

In line with technological developments, now many games can be played with the support of the Augmented Reality program so that the games become live and like the real world.

a) *Social Media*



**Figure 7.** The Use of AR for Social Media.

Source: <https://www.dicoding.com/blog>.

On social media, one of the AR features that is often used is on Instagram and other social media. Apart from being an entertainment medium, it is also an educational medium. To maximize its use, filters are needed. These filters were created using AR as a 3D object which also uses a touch of AI (Artificial Intelligence) technology as its logic.

#### *b) Medical Surgery*

**Figure 8.** The Use of AR for Medical Surgery.

Source: <https://www.dicoding.com/blog>.

Thus, the use of AR has expanded in various fields, and is now being used to read comics, especially "Pelayaran ke Dusung" in the hope of bringing the Millennial Generation closer to familiarity with folklore as a source of inspiration for character education.

### **Conclusion**

The roles of the characters in the comic "Pelayaran ke Dusung" are characters that are inseparable from Bugis philosophy who have attitudes that are expected to fulfill the elements of the character values of Sipakatau, Sipakalebbi, and Sipakainge. Through the roles of the characters in this comic, it is hoped that readers can understand the character content of each character who plays a role in the comic about the voyage to Dusung.

In general, the classification of character roles and values in the comic "Pelayaran ke Dusung" is as follows: Sawerigading as the main character in the story of the voyage to Dusung, Batara Lattu as a supporting and complementary character in the story of the voyage to Dusung. La Sinilele and La Pananrang as tritagonist characters in the story of the Kedusung voyage mediate each conflict that arises in the story.

Character education through the comic "Pelayaran ke Dusung" by focusing on the characters Sipakatau, Sipakalebbi, and Sipakainge makes an important contribution in forming an understanding of moral and ethical values in readers. Sipakatau as a concept that treats humans humanely as a form of mutual respect and in leadership, he can behave and act appropriately and wisely, Sipakalebbi as the embodiment of justice and heroism, and Sipakainge which reflects honesty and loyalty, provide a strong role model for readers, especially young generation. Through the story "Pelayaran ke Dusung" which is full of adventure and challenges, this comic conveys messages about courage, friendship, integrity and enriching the values of local characters in everyday life.

By exploring more deeply the development of each character, you can make the story more dynamic and engaging. Exploring deeper local values, such as customs or folklore, and integrating them into the character's experiences can strengthen the moral message and enrich the reader's experience.

The results of this research show that comics with reflections or instructions on how the values taught can be implemented in real life, provide strong messages and empower readers to practice these values in everyday life.

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