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Research Article

The Exploration of Educational Value in Randai Minangkabau Art, Indonesia

Fitri ARSIH[1], Siti ZUBAIDAH[2], Hadi SUWONO[3], Abdul GOFUR[4]

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Abstract

This study aims to explore the value of *Randai* arts education and integrate it into problem-based learning models to improve the communication skills of prospective science teachers. The study is qualitative research with a descriptive approach focused on the ethnopedagogic field. Data on the exploration of the value of *Randai* arts education was obtained through interviews and observations. Prospective teacher communication skills data collected through observation during the learning process. Data were analyzed with descriptive statistics and the N-Gain Test. The results of the study revealed that: (1) the educational values contained in *Randai* art are: *Barundiang* (conferring), *bakarajosamo* (collaborating), *kaba*, *garak malingka* and drastic practice of *kato nan ampek*, (2) the value of *Randai* arts education is integrated in the problem-based learning models with characteristics: learning is built by the collaboration of *Kaba* (story) and drama in describing the problem, social interaction is built: *barundiang, bakarajosamo, duduak basamo balapang-lapang* and *bulek kato deck mufakat*, (3) The results of effectiveness tests show that integrating the value of artistic education *Randai* in the problem-based learning model is effective in improving the communication skills of prospective science teachers with an average N-Gain of 0.84 (high category). Thus it can be concluded that the value of *Randai* arts education can be integrated into the learning model as an effort to improve the communication skills of prospective science teachers.

Keywords:

educational values, integrated cultural learning, *Randai* art, Communication skills

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[1] Postgraduate student, Biology Education Program, Universitas Negeri Malang, Biology Education Program, Universits Negeri Padang, Indonesia. E-mail: fitribio@fmipa.unp.ac.id / ORCID No: 0000-0001-5703-5405
[2] Biology Education Program, Universitas Negeri Malang, Indonesia E-mail: siti.zubaidah.fmipa@um.ac.id.
[3] Biology Education Program, Universitas Negeri Malang, Indonesia E-mail: hadi.suwono.fmipa@um.ac.id.
[4] Biology Education Program, Universitas Negeri Malang, Indonesia E-mail: abdul.gofur.fmipa@um.ac.id

Introduction

The development of science and technology has caused considerable changes in the order of people's life in Indonesia, especially in the aspects of economy, education and socio-culture. In this case, if a gifted student in Indonesia are not able to take advantage of technological advances wisely, they may easily fall into negative behaviors, that cause character and moral decline. Gifted student are the most important part in developing education including the development of education in Indonesia.

In general, gifted children need special conditions to increase their potential (Schreglmann & Öztürk, 2018) both aspects of hard skills such as communication skills, thinking skills, the ability to deal with problems creatively and soft skills aspects such as learning values and culture. However, in practice education in Indonesia has not consistently led to the achievement of hard skills, one of which is critical thinking skills (Umami, 2018). Learning processes that are prone to memorizing products (concepts) and lacking in the realm of affective and skills (Johannessen, Adriaenssen, Ernes, & Johannessen, 2017).

Some other educational problems that still need improvement efforts include the failure of value education in schools, the education process which is more dead knowledge or also called book-centered knowledge (Zamroni, 2000), soft skills and other non-academic aspects such as character development, tend to be ignored (Umami, Gani, & Waskito, 2019). The education system tends to be partial so that Indonesian people are less understanding and respect culture (Alexon, 2010). This phenomenon also occurs due to lack of attention and accommodation of culture and local wisdom that exists in the community in curriculum developers (Suastra, 2017), which results in low-quality education. This condition is also exacerbated by a decrease in appreciation and implementation of cultural values because of lack of cultural integration in the school environment and the home environment of students (Anwar, Suardika, T, Suleiman, & Syukur, 2018). The shift of cultural values results in the increasingly forgotten local cultural values. Therefore, systematic preservation is very much needed through integrating it with school learning (Parmin, Nuangchalerm, & Islami, 2019).

The learning process is a cultural transmission process so that preservation and planting of cultural values can be done through the process of education in schools. Creating a learning environment that is in line with cultural values and student-centered and creating a quality school environment is a preventive effort to reduce unwanted student behavior and increase student potential (Kaya & Ataman, 2017). In this paradigm, the purpose of education is not only to teach students about their world, but also to maintain the development of values and a positive sense of self (Morotti, 2006). Integrated cultural learning is one solution that can be done to improve the quality of education in Indonesia. Besides being able to develop basic

competencies in science, cultural integrated learning also plays a role in developing and preserving local wisdom at the same time (Suastra, 2017).

Some experts have explained how the relevance and influence of planting cultural values on the educational process. Proper introduction and infusion of culture into a science curriculum can improve student performance and interest during the learning process (Davison & Miller, 1998). UNESCO, world organizations, related to Education, has mandated and emphasized the importance of integrating and using culturally appropriate educational material since 2003. Integrated cultural education is the foundation of students' teaching and learning in values, norms, knowledge, beliefs, practice experiences, and languages that constitute the foundation of a culture (Kana'iaupuni, Brandon, & Jensen, 2010).

Some researchers from several countries have also provided information on the effect of integrated cultural learning on student learning outcomes. Cultural integrated education is an appropriate alternative approach to education and the practice of science, which has a positive effect on the achievement and acquisition process of skills and interests of Indian students in America (James, 2006). Integration of cultural values and traditions has an impact on speaking, thinking and increasing student motivation in learning literature, art, mathematics, and science in Kazakthan (Erkisheva, Koshanova, Alikhanova, & Omarova, 2014). The results of Okwara's study (2017) explain an increase in the achievements and interests of students in learning Basic Science and Technology in Benue State, Nigeria, through integrated cultural learning.

Integration of culture in learning especially science learning in Indonesia has begun to implement. Some research is carried out through integrating cultural values and local wisdom into the themes and sub-themes of the subject matter (Prasetiyo & Dewi, 2013; Sarwanto, Sulistyo, Prayitno, & Pratama, 2014; Leksono, Syachruroji, & Marianingsih, 2015; Subhan, 2017 ; Kurniati, Wahyuni, & Putra, 2017; Anwar, Suardika, T, Suleiman, & Syukur, 2018). In addition to through subject matter content, cultural integration can also be done by developing learning models. Some researchers in Indonesia have conducted research on integrating Balinese, Sundanese, Javanese, Bugis, Batak cultural values into the learning model (Marheni & Suardana, 2014; Subali 2014; S, 2015; Arwita 2017; Hermawan, Suwono, & Susilo; Restina 2017).

Based on the results of previous studies, the integration of culture is still limited to culture in the form of local knowledge, values of interaction between the order of life and the potential of nature. Meanwhile, culture in the form of art has the opportunity to be collaborated with the learning process. One culture in the form of regional arts that can be integrated into the learning model is the Randai art originating from Minangkabau, West Sumatra.

Randai Art was also known as one of the *pamenan adaik* (traditional games) or also known as the *pamenan anak nagari* (children's game of the country). *Randai* is one of

the traditional Minangkabau cultures that is done collectively because it is built by elements of drama, *Kaba* (story), dance, song and silat. *Barandai* means *Bakaba* (storytelling). *Kaba* told in the *Randai* performance are issues related to religion, customs, and culture, which generally relate to biography. Therefore, if *Randai* as a *pamenan anak nagari* (custom game), then *Randai* still refers to Minangkabau customs. In the Minangkabau community environment, *Randai* is considered a powerful communication media and plays a role in solving social life problems.

Randai is a type of cultural heritage from the Minangkabau community. However, in the present, *Randai* art has begun to erode from the attention of the Minangkabau people even "abandoned" because of losing competitiveness with modern art such as Korean pop music that is very booming among teenagers. This is certainly very ironic, considering that in ancient times, the *Randai* show was very glorified because it contains social messages and moral messages in it. The lack of lessons about the art of *Randai* in schools is one of the causes of the reduced interest of the community, especially young people, towards this art. The proverb says "Out of sight, Out of Mind", so that if the younger generation is no longer given the knowledge of *Randai* then it is impossible that they will like it because something that does not like is certainly not developed. Thus, eventually *Randai* will begin to disappear from the culture of society because it is eroded by the flow of changing times, which increasingly leads to a culture of modernization.

This study aimed to explore the educational values of *Randai* art as one of the arts and local wisdom of the Minangkabau people, Indonesia. Educational values for *Randai* arts need to be traced so that they can be used as knowledge for the community and can be used as a basis for developing integrated learning of local culture. Therefore, before *Randai* is integrated into learning, it is necessary to analyze and identify educational values from the art of *Randai* that can be integrated into learning so that learning models that contain local wisdom can be produced.

Integrated Cultural Learning in the Form of Art

Cultural integrated learning becomes a tool of the learning process in motivating students to apply knowledge, work cooperatively, and perceive the interrelationships between fields of science (Mariana, 2017). Learning with culture can make students not alienated from their local culture and increase students' appreciation of local culture. Integrated cultural learning can educate because culture-based learning is also constructive learning (Alexon, 2010). Besides, integrated cultural learning is able to build inspiration and move students into a wider society that is able to actively provide a revolution that is responsible for the surrounding social problems. When viewed from the aspect of the teacher, integrated cultural learning facilitates the creation of a dynamic learning atmosphere, which recognizes student existence, student experience, and knowledge.

Integrated cultural learning is a form of learning that combines material or learning processes with the culture of society (Ardan, 2016). One culture in

Indonesian society is regional art. Various kinds of regional arts have been the culture of Indonesian society, including songs, musical instruments, stories, traditional dramas, and so on. Every regional art has advantages and uniqueness that can be integrated into the learning process.

Learning that is integrated with art is a strategy in developing cognitive (Baker, 2013) and improving students' critical thinking skills (Nilson, Fetherston, McMurray, & Fetherston, 2013). In the classroom, integrating science and art gives students the freedom to think, find, and make connections (Alberts, 2010). This is in line with Vygotsky's cognitive development theory, which emphasizes the importance of language and cultural experience in students' cognitive and concept development. Eisner states that art gives children experience, meaning, and development of thought. In particular, they create meaningful relationships with concepts taught through active learning activities (Baker, 2013). So that through the integration of art, the implementation of hierarchical instructional objectives, including the use of context and culture can be incorporated into instructional units to promote cognitive variables related to intellectual development.

Art provides benefits and influences in increasing motivation, attention, and understanding (Gazzaniga, 2008). Supported by the Fund Foundation, Gazzaniga summarizes several findings that address preliminary evidence that exploration in the arts has an impact on the brain function by influencing the development of sequencing, semantic information manipulation, and motor learning skills. Art integration also plays a role in promoting a student-centered pedagogical approach; various elements of art allow students to develop self-confidence, communication skills, understanding of the way they learn and most of the important art of expressing themselves (Dhanapal, Kanapathy, & Mastan, 2014).

Integrated art learning has an influence on the development of students' social interactions because each art student will interact with each other in developing ideas and imagination. Art gives inspiration to students to produce imagination in reality (Greene, 2007). Art provides space for students to imagine more than knowledge because knowledge is limited to everything we know and understand while imagination covers the whole world and all who have ever known and understood. Besides that, the results of the meta-analysis research show that student participation in art contributes to improving students' academic performance (Walker, Winner, Hetland, Simmons, & Goldsmith, 2011).

***Randai* Art ss s Media for Education**

West Sumatra is one of the provinces in Indonesia that has a variety of cultures. The territory of the province of West Sumatra is identical to the Minangkabau ethnic group so that by custom and tribal, communities in West Sumatra is known as the Minangkabau community. One form of culture in Minangkabau customs is art. *Randai* is one of the arts originating from Minang (West Sumatra). *Randai* is the only traditional art that is done collectively because it is built by elements of drama, *Kaba*

(stories), dances, songs, and *silat*. *Randai* is the dramatic practice of *kato in nan ampek* and is also known as one of the *pamenan adaik* (traditional games) or also known as *pamenan anak nagari* (game of the children's negeri). A game with a movement in a circle, then slowly moving, while conveying *Kaba* (story) through singing alternately (Harun, 1993).

Barandai means *Bakaba* (storytelling). *Randai* is a *Kaba* performance and drama or theater form. *Kaba* is messages that contain indigenous knowledge, advice by using figurative sentences or vague words (Zulkifli, 2013). *Randai* has its own characteristics; (1) *Randai* contains about *Kaba* (stories) that are popular in the community, (2) the delivery of *Kaba* is done in the form of dialogue and singing accompanied by traditional musical instruments such as *talempong*, *saluang*, *rabab*, and *gandang*, (3) dramatic values developed through improvised players and in general it is spontaneous, (4) there is a close and harmonious relationship between players and spectators, (5) *Randai* can be played in an open environment called *medan nan bapaneh*, (6) *Randai* performances are very flexible in terms of story and time (7) the language used in the *Randai* show is the Minangkabau language (Indrayuda, Muasril, & Budiman, 2013).

Randai is a medium for the message and indigenous knowledge. Indigenous knowledge is the knowledge of certain indigenous peoples that have been used for centuries to survive and exist every day (Die, 2011). In local communities, such knowledge can be found in the form of stories, songs, rituals, myths and mythologies, fairy tales, proverbs, and folklore. They can also be found in aspects of material cultures, such as symbolic ornaments and equipment bodies, and the social meanings and interpretations enshrined in cultural artifacts. Pedagogically, instructionally and communicatively, knowledge of this indigenous culture informs and/or teaches about the idea of education as a community right, the rights and responsibilities of students to be independent and others (peers, teachers, and society in general).

In pedagogic science, *Randai* art can be said to be a learning media for Minangkabau people. *Randai* art has implemented various learning methods, namely the drama method. The learning process in the drama is dynamic in three things: physical, mindfulness, and interpersonal abilities. Physically learning is done traditionally, for example, sitting, listening, and listening to stories performed. Besides, the drama process requires body movements because students enter and exit between the real and imagined world of drama when they play a role. This situation requires them to reflect their role critically.

Drama is a practice of a constructivist approach; students express their thoughts verbally, written, and physically. Simultaneously, they can understand and interpret the forms of self-expression of other students. The shared meaning develops when they discover objects and events in the social environment (Saka, Ebenezer, Çakır, & Saka, 2016). Creative drama activities can help in forming new contacts using

children's background knowledge (DuPont, 2009). The integration of drama into education provides an alternative approach to learning. The drama has the potential to increase imagination, promote independent thinking, enable cooperative learning, and create social sensitivity.

Problem of Research

Today's science educators face huge challenges despite important educational and research reforms over the past few decades. The most important and worrying challenge is the low motivation and interest of students in learning science. The low interest in learning is followed by a decrease in students' values, morals, ethics and communication skills. If this phenomenon continues to be feared it will affect the quality of Indonesia's human resources in the future.

Based on the results of observations, the learning process correctly carried out at universities, especially at Padang State University, has been carried out with a variety of methods such as discussion, question and answer, observation, and practicum. But in general, the implementation of these methods has not been systematically organized through the learning model and has not provided an opportunity for students to develop character. Learning places more emphasis on intellectual development and is still minimal in character development.

Various efforts can be made to overcome the problem of science education by sticking to the nation's cultural values. One way is to integrate cultural values in the learning process. Integrating cultural values can be done, one of which is through explicit instruction or general programs (Radulović & Stančić, 2017). Problem-based learning can be integrated with art and culture to increase student interest, motivation, and as a means of instilling character values. The integration of art in the learning process can be used to strengthen academic concepts and make content more interesting (Peppler et al., 2014).

As a learning strategy, integrated learning of cultural values from *Randai* arts will encourage imaginative, metaphoric, communication skills, and cultural awareness. Thus integrated learning combined cultural values from *Randai* arts not only educates, inspires but also moves students into the wider community who can actively provide responsible resolution to the surrounding social problems. Integrating these cultural values is also a step in maintaining the preservation of *Randai* art that is not yet known or has begun to be forgotten by the younger generation in the West Sumatra area.

The focus of the problem in the research conducted is:

- What educational values can be explored from Randai art?
- How to integrate the values of Randai arts education in the science learning process?
- How is the effectiveness of the integration of Randai arts education values on learning of student communication skills?

Method

Research Model

This research is intended to explore the value of *Randai* arts education, Minangkabau, West Sumatra. This study uses a qualitative method with a descriptive approach focused on the ethnopedagogic field. The study was conducted in the cities of Padang and Sawahlunto as cities that consistently re-developed *Randai* art.

The research phase is carried out as follows; (1) tracing information through print and electronic media reference studies of *Randai* arts education values; (2) conducting interviews and direct field observations to collect data; (3) selecting the results of exploration, only the educational value that is relevant to learning is chosen to develop the learning model; (4) integrating the educational value that has been obtained into problem based learning; (5) testing the effectiveness of integrating the value of *Randai* arts education on the communication skills of prospective science teachers.

Participants

Participants in the research were informants who are very understanding and can provide in-depth explanations about *Randai* art. This key informant was selected using a purposive sampling technique, but later the informant developed through the snowball technique. The informants in this study consisted of 3 *Randai* experts (Minangkabau culturalists), three education practitioners in the Minangkabau culture, 2 Minangkabau traditional figures (Nagari traditional society Chairmen), five *Randai* players, and 2 *Randai* trainers. In addition to testing the effectiveness of the integrated learning model of *Randai* arts culture values involved 71 prospective science teachers at Universitas Negeri Padang, Indonesia. The effectiveness test is carried out on the Human Anatomy and Physiology course.

Data Collection

The data obtained includes; (1) educational values found in *Randai* arts; (2) the characteristics of an integrated learning model in the value of *Randai* arts education; (3) the ability of prospective teacher's communication skills after through integrated learning is the value of *Randai* arts education. Data for research was collected using semi-structured interviews using a list of written questions as a guide. The purpose of the interview was to obtain in-depth information related to *Randai* art and the values contained in *Randai* art. Besides, data collection was also done through direct observation in the field, documentation, and literature study.

The data collection procedure begins with designing and developing interview guidelines that are appropriate to the needs of researchers that are related to digging up information on *Randai* art and the value of *Randai* art education. The indicator variables in the interview were: how is the history of *Randai* art, the philosophy of *Randai* art, the meaning of *Randai* art, the mechanism for the implementation of *Randai* performances, the interaction patterns built from *Randai* art and the people's views on *Randai* art. The data from the interview was then strengthened through a

literature study by searching for articles related to *Randai* art. Observations were carried out using non-participatory techniques, where researchers only looked at the reality of the *Randai* show held in the cities of Padang and Sawahlunto, which occurs in the field but is not directly involved.

The instrument used to see the effectiveness of the integrated learning model of *Randai* culture values was the observation sheet of communication skills. Communication skills are measured using the rubric of Allen communication skills (2014) consisting of Organization, Content, and Delivery Indicators with a rating scale of 1-4.

Data Analysis

Data analysis was done by interpreting the interview data with the results of observations. Data analysis was carried out by combining the results of interviews with the results of observations resulting in a strong data interpretation. Based on the results of this interpretation, it was obtained information about the history of art, *Randai* components, and educational values contained in each *Randai* performance. Thus, the information will be obtained about the values of *Randai* art that can be integrated into learning.

The effectiveness of integrated learning models in the value of *Randai* arts education can be seen from the level of communication skills achieved by prospective teacher students after the learning process. Communication skill test results were analyzed using the Normalized Gain equation (N-gain) (Hake, 1998). The analysis results are then categorized as in Table 1.

Table 1.

Normalized Gain Interpretation Criteria

Persentase	Criteria
$0.70 \leq g < 1.00$	High
$0.30 \leq g < 0.70$	Moderate
0.0 $g < 0.30$	Poor

Results

1. Views of Educational Value in Randai Art

The search for the values of *Randai* arts education was carried out through interviews with informants who understand the ins and outs of *Randai* art, which consists of *Randai* experts (Minangkabau culture), Minangkabau cultural education practitioners, Minangkabau traditional leaders (Nagari traditional society Chairmen), *Randai* players, and *Randai* trainers. In addition to interviewing data related to educational value, it was also traced through direct observation to the *Randai* group in Padang (the Nan Jombang Ladang Dance Group) and the *Randai Ngalau Nan Sati Group* and the *Randai Lubuak Simaung Group* located in Sawahlunto City, West Sumatra Province. This observation was carried out as a reinforcement of

information that had been obtained from the informants. Based on the information gathering process, the values of *Randai* art education were grouped into three parts, namely: (1) education values in preparation of *Randai* performances, and (2) educational values in *Randai* performances. The following will explain what educational values can be found in *Randai* art.

Educational Value in Preparation for *Randai* Performance

Randai art performances require very thorough preparation. Preparation begins with the selection of themes, characterizations, and *Kaba* (story) scenarios to be told. In the implementation of *Randai* preparation, there are positions that contain the educational value, namely: *Barundiang* (conferring). *Barundiang* is carried out principally at the *bulek kato dek mufakaik* (one word in consensus) and *bakarajosamo* (in collaboration) by all elements involved in the *Randai* staging.

Barundiang is an activity of speaking, counseling, or deliberation in solving problems. *Barundiang* is a form of local wisdom in the form of culture carried out by Minangkabau people in solving problems. In the *Randai* staging preparation post, all the elements involved in the performance were *Barundiang. Barundiang* is done in determining the *Kaba* theme, the selection of roles and players, the determination of the *lageran* (Randai child) and the determination of the *gurindam* that will accompany *kaba. Barundiang* is carried out in an organized manner led by the supervisor of the *Randai* Group, termed the *Pangkatuo Randai*, namely elders who have a lot of experience in martial arts, inner science and are very familiar with customs. In this case, the proverb "*bajalan jo nan tuo* " that means to walk with an older person applies. It is intended that the *Randai* show that will be staged will contain truth-values traditionally and in the ethics of the Minangkabau community, therefore traditional elders supervise all *Randai* activities. The selection of *kaba* to be played is determined by the results of the *Barundiang* between *Pangkatuo* and the traditional leader and stakeholders, because the *kaba* chosen must be beneficial for the *Randai* child and his people and audience.

According to Chairul Harun, Minangkabau Culturalists (June 10, 2018) a group of Randai does not have written rules and strict division of tasks within the organization. The interaction built by each *Randai* group is solidarity, mutual respect and mutual love. All members of the *Randai* group, in this case, termed *bakarajosamo* (in collaboration), carry out all preparations jointly. It means that *Barundiang* procession apply cooperation. Each *Randai* group holds the principle of democracy as the basis of social relations, so that there is no an absolute leader in the *Randai* show. Even though the performance of the *Randai* shows is incorporated into a structure that gives rise to different positions with each other, all elements of the committee work together cooperatively in its implementation. Based on this activity, it can be interpreted that the preparation of the *Randai* performance contains character values that reflect the social attitudes of the Minangkabau people in overcoming problems and making decisions, namely by prioritizing deliberations

that cling to the principles of democracy. This means that *Randai* has taught the community about the meaning of a conversation that puts forward the element of togetherness and unity in solving problems through the art.

Barundiang's position with the principle of *bakarajosamo* (working together) in preparation for Randai performances can be integrated into the learning process in the classroom. Pedagogically, the *Barundiang* position can be synchronized with discussions, while *bakarajosamo* is linked to cooperative learning. *Barundiang* has a deeper meaning because *Barundiang* is not only a discussion activity but is also more emphasized on the process of solving problems together. Discussion allows students to consider various perspectives on a topic (Rahman et al., 2011). Students bring several different characteristics to the class that inform how they understand and understand a topic. The use of discussion allows students to explore the topic more deeply than just reading about it or listening to lectures on the topic.

In this case, *Barundiang* and *bakarajosamo* provide space for students to explore, develop the skills of thinking, analyze, synthesize, and evaluate. Meanwhile, in *bakarajosamo,* students are trained in the cultivation of character values in the form of cooperative learning. Cooperative learning in educational research is reported to be a successful pedagogy because students work towards shared goals and are considered useful in science classes to solve problems (Kibirige & Lehong, 2016).

Barundiang is planned and done together to solve problems. Therefore, *Barundiang* can be recommended as a form of learning method that becomes an effective tool to help students in solving problems cooperatively by applying abstract ideas and thinking critically about what is being learned. Discussion is a teamwork based on the principle that the knowledge, ideas, and feelings of some members are better than individual or single. Through discussion, students will be actively involved in processing information and ideas. Discussion is a forum where students can practice expressing themselves clearly and accurately, listening to various forms of opinion, criticizing and evaluating all ideas and concept that are raised (Gage & Berlinar, 1988).

Educational Value in Randai Performance

Randai performance procession contains several educational values, namely: (a) the educational value in the *pasambahan* (opening), (b) the educational value in the *kaba* (story) being staged, (c) the educational value of the *garak malingka* (circular motion) and (d) the value of education in the dramatic practice of *kato nan ampek*.

a. The Value of Education in the *Pasambahan* (opening) of *Randai* Performance

Pasambahan is an opening procession before the *kaba* was staged by all *Randai* players (figure 1). *Pasambahan* is always filled with requests for prayer to God as the creator because He has provided the ease of holding the *Randai* show. In addition, there was also an apology to the audience if there was unintentionally mistakes or inappropriate thing in the performance. *Pasambahan* expression was conveyed with rhymes

accompanied by *dayang daini* and *simantang randah* songs (Interview with Nagari traditional society Chairman, July 26, 2018).

Figure 1.
Pasambahan Procession before the Kaba was Staged

Pasambahan activity that contains spiritual values means that opening and starting a job must begin with asking for help from the creator, namely Allah and starting work with a heart that is always sincere and clean. This shows that the character of the Minangkabau people strongly maintains vertical relations, namely the human relationship to Allah (*Hablumminallah*), and horizontal relations are human relations (*Hablumminannas*).

Spiritual values are an important dimension of human education (Niculescu & Norel, 2013). Spiritual values guide human behavior in understanding science (Chowdhury, 2016). In this case, spiritual values are a filter in response to the development of science and technology. Therefore, religious values need to be applied in the process of education and the teaching of science.

Spiritual values in the *pasambahan* (opening) of *Randai* performance can be applied in the learning process, especially science learning (Biology), in this case, the *Hablumminallah* principle can be practiced through praying before starting the lesson, integrating the values of gratitude for God's greatness and power by integrating the values of God Islamic values on the content of science material (Biology). Meanwhile, the principle of *Hablumminannas* can be applied through interaction during the learning process by greetings, attitudes to love each other, respect, and cooperation. Thus, the spiritual value in *pasambahan* (opening) Randai staging can be referred to as a step in the alternative to overcome students' moral decline and as an effort in instilling the character values of students to become fully human.

b. The Value of Education in *Kaba* (story) is Staged

According to Randai expert who is also a Minangkabau cultural observer, Eri Mefri (June 3, 2018), *Kaba* is a story or story, which is a media in providing education to the Minangkabau people by referring to one character. *Kaba* explained the story told in the form of an event or social phenomenon or a life phenomenon of a character in his life in society. The *kaba* that was told in the Randai performance was a matter of custom and culture. *Kaba* played is a circulating *kaba* in Minangkabau that has an

element of Education, namely: religious education and traditional education. So that if Randai is a children's game, then Randai still refers to the Minangkabau customs.

The selection of *Kaba,* which was told in the Randai performance, was adjusted to what message to be conveyed to the public or the public. The chosen *Kaba* theme is sometimes an illustration of a phenomenon or event that is rampant in people's lives. For instance, *kaba* is used to educate and advise the younger generation if their behaviors conflict with custom so that the the audience gets lessons from the *kaba*. This method is more effective because the public feels unjustified and not patronized in their behavior.

Kaba on *Randai* has its own characteristics. *First,* the characteristic of *randai* contains *kaba* (stories) that are popular in society. *Second,* the delivery of *kaba* is carried out in the form of dialogue and singing, accompanied by traditional musical instruments such as *talempong, saluang, rabab*, and *gandang. Third*, dramatic values are developed through improvisation of players and generally are spontaneous. *Fourth*, there is a close and harmonious relationship between players and spectators. *Fifth*, *Randai* can be played in an open environment called the *medan nan bapaneh*. *Sixth, Randai* performances are very flexible in terms of story and time. *Seventh*, the language used in the Randai show is the Minangkabau language.

Kaba in *Randai* art can be aligned pedagogically with the method of story or drama. Storytelling is a pedagogical strategy of training students to talk and interact with other people. Telling stories to allow the transfer of knowledge among people. Storytelling among peers during reflective processes has been reported to create an interactive environment and effective communication that supports professional growth (Miller & Pennycuff, 2008). Stories can help students build empathy, develop creativity, and critical thinking skills (Giorgetti, Campbell, & Arslan, 2017).

A story is an appropriate tool to document experiences and produce reflections, because telling and writing stories is associated with facilitating, sharing, reflecting and building a social atmosphere in which a sense of collective experience is formed. Cognitively, students build connections with prior knowledge and create new knowledge, so that storytelling can be used as a memory-strengthening tool to help students transfer stored knowledge to new situations (Altintas, 2018).

Stories allow people to understand and associate ordinary events with one another and help to turn them into meaningful emotional models (Shirley, 2005). Therefore, teaching through stories is a very powerful tool that can give students rich, energetic, meaningful, and lasting imaginations. Listening to stories stimulates imagining, prior experience, and knowledge.

c. The Educational Value of *Garak Malingka* (Circular Motion)

The *Randai* show is done in a circle or called *Garak malingka*. Malingka means circular, meaning that all activities are carried out in a circle (Figure 2). This circle is a symbol that contains philosophical meaning about unity, openness, and integration between humans and the cosmos circle or plot (Forshee, 2006). The audience

watches *Randai* in a circular position around the *Randai* player. The same thing is done by *Randai* players, in all staging *kaba* is played in a circular position. The circular position also means deliberation in making decisions and is by the third and fourth precepts in the Pancasila, the basic life of the Indonesian people. Movement around in a circle made by the players interpret the preachers who went around to spread the religion of Islam from one place to another following the history of the *Randai* Minangkabau art. According to Ery Mefri, the position of the circle shows the limits of customary power to each other *nagari* (an area). The substance of the circle is a guide to living in a society, a life of deliberation by holding the principle of *tagak sama tinggi duduak sama randah*, meaning that all human beings are the same, talk face to face, respect each other.

Figure 2.
Garak Malingka (Circular Motion on) Randai Performance

Garak malingka's position can be applied in the learning process. *Malingka* can be done in group discussions or class discussions. This position allows the establishment of social interaction between students, especially interactions in communication. In general, every class of learning in Indonesia is still heterogeneous so that the *Garak malingka* position provides students with the opportunity to do peer tutoring in understanding concepts and allows all students to be actively involved in the learning process.

d. The Value of Education in the Dramatic Manner of *kato nan ampek*

Minangkabau has the art of speaking. The term is attached to the term *kato nan ampek* (the four words), as a way of speaking that must be considered by the Minang people when interacting in daily life. First, *kato mandaki*, a way of speaking by younger people to older people. Second, *kato manurun*, a way of speaking by older people to the younger ones. *Third*, *kato malereng*, a way of speaking that is carried out between respected fellow. *Fourth*, *kato mandata* is a way of speaking by people of the same age or age.

Randai is an art that applies language art in the dramatic practice of *kato nan ampek*, with dialog formats of *kato mandaki* and *kato manurun* that occur between *mandeh*

(mother) and children. *Kato mandaki* is used when *bakato* (talking) with *urang tuo* (parents or elders). It represents the education of the Minangkabau community that has strict rules in speaking and communicating. *Kato nan ampek* have four elements, namely: *Kato mandaki* is a way of speaking to older people humbly and meekly, for example with father, mother and uncle. *Kato mandata* is a way of speaking to peers (figure 3). *Kato malereng* is a way of speaking to people whom we respect and *Kato Manurun* is a way os speaking to younger people with an educational mind.

Figure 3.
Dramatic Behavior of Kato Mandata (horizontal words)

In the present, the concept of *kato nan ampek* is difficult to find in everyday life, especially in dialogue of *Minangkabau* people. However, the nature of *kato nan ampek* is still visible in their behaviour as children respect parents by shaking hands by kissing parents' hands. In dialogue, it was very difficult to find the *kato mandaki* performing in speaking especialy the way of dialogue among young people to older people. They tend to use the *kato mandata* order. This is probably due to the influence of the high knowledge of younger people by having a high level of Education so that it has fade *caro ba kato mandaki ka yang tuo* (the way of speaking by using *kato mandaki* to older people) whose education is lower than young people are. However, no matter how great the children or nephews in the Randai art, it still retain the format of courtesy, *kato mandaki*. Therefore, if you bring Randai as a character formation in the world of education, you lead ethics and culture into the realm of Minangkabau. It means that discussing Randai as elements of Education is talking about the character of Minangkabau people.

2. Problem-based Learning Integrates the Value of *Randai* Arts Education

The results of the investigation into the value of *Randai* arts education are used as a basis in the development of innovative problem-based learning models integrated *Randai* cultural values so as to produce a learning syntax such as in Figure 4. Innovation of problem-based learning models integrated with *Randai* cultural values refers to learning theories and the development of learning models according to Joyce & Weil (2003) which consists of 5 components, namely (1) the syntax of the learning model. (2) Social systems, namely the situation or atmosphere and norms

prevailing in the model, such as the role of lecturers and activities that must be undertaken by prospective teacher students during the learning process, (3) the principle of reaction, (4) the support system, and (5) the impact learning. The results of the design are comprehensively interpreted in Figure 4.

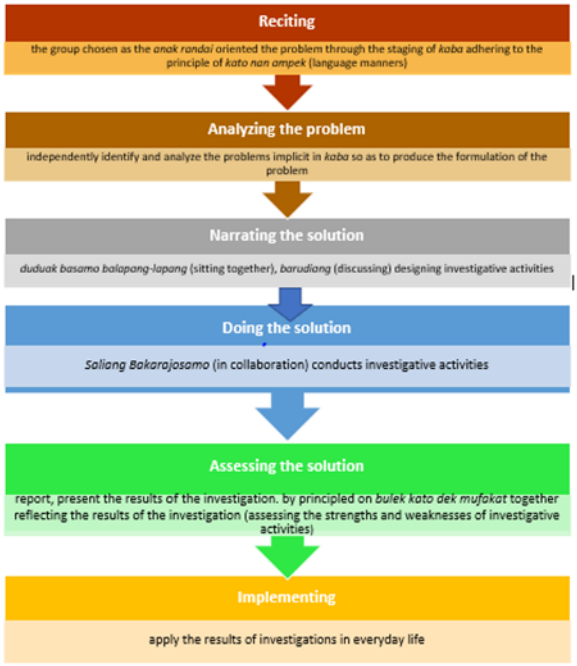

Figure 4.

The Development of Problem-Based Learning Models Integrated the Value of Randai Arts Education

The results of expert validation show that the innovation of the problem-based learning model integrated with the *Randai* cultural values is valid (see Table 2) with an average validation value of 4.33. Based on the results of the validation, the innovative problem-based learning model integrated with the value of Randai arts education has been able to be implemented in the learning process as a strategy to improve the educational skills of prospective science teachers.

Table 2.

Learning Model Validation Results

Assessment Aspects	Average score	Criteria
Supporting Theory	4,25	Valid
Syntax	4,25	Valid
Social system	4,63	Valid
The role / duties of the lecturer in management	4,50	Valid
Supporting System	4,50	Valid

3. Effectiveness of the Integration of Randai Arts Education Values on Learning of Student Communication Skills

The effectiveness of innovative problem-based learning models integrated the value of *Randai* education is measured through an assessment of the communication skills of prospective science teachers. The results of the effectivity test showed that the post-test scores of communication skills were significantly higher than the pre-test scores. The results of the analysis of the critical thinking skills of the sample are shown in Table 3.

Table 3.

Communication Skills of Prospective Science Teachers

Class	Rerata Pretes	Rerata Postes	N-Gain	Criteria
Problem-based learning models integrated the value of Randai	73.03	95.95	0.84	High
Problem based learning model	69.79	84.94	0.49	Moderate

Based on the calculation of the percentage of the N-gain score shows that the average N-gain score for the Problem-based learning models integrated the value of Randai is 0.84 included in the high category, better than the N-gain score for the Problem-based learning model class is 0.49 falls into the mederate category. These results indicate that the innovative problem-based learning model integrated with the value of *Randai* education is effective in enhancing the communication skills of prospective science teachers.

Discussion and Conclusion

Randai, as one of the local wisdom of the Minangkabau community, can be used as a medium in the development of national cultural values to students. According to Kurniati, Wahyuni, & Putra (2017), students can learn cultural values and a sense of nationalism that can influence learning outcomes (attitudes, behaviors, and thinking abilities) through local wisdom. Local wisdom is the basic knowledge gained from living in balance with nature. This is related to the culture in a society that is accumulated and passed on. This wisdom can be abstract and concrete, but an important characteristic is that it came from experience or truth obtained from life. Wisdom from real experience integrates body, spirit, and environment (Mungmachon, 2012).

Randai art can also be integrated into the process and learning content. From the pedagogical point of view, *Randai* can be synonymous with the learning method, namely the story method and the drama method because the construction of the *Randai* art is filled with dialogs delivered by the drama method. The drama method can provide opportunities for students to display their thoughts both physically, verbally, in writing and allow students to interpret the expressions of their peers

(Saka, Ebenezer, Çakır, & Saka, 2016). According to Yoon, H.-G. (2006), science education not only requires natural phenomena and events but also requires direct student participation. Science drama offers students a large space to talk, express, adjust, and evaluate their scientific knowledge and thinking with 'liveness,' and this results in an invalid learning environment.

One of the main concerns of science educators is finding teaching strategies and methodologies that can enhance students' learning and experience in science. During the history of science, models have played an important role in the development of science. Drama can be seen as one of the most inspirational and most effective methods that can enhance students' understanding of scientific concepts and sharpen their aesthetic experiences in science. Using drama in science classes can enhance student, development, academic, and socially inclusive growth (Abed, 2016).

Education in the 21st century needs resources that have content and communication skills (Okoli & Alexander, 2017). Through Randai, students can be trained to communicate. Communication skills are communication skills that can be defined as transmitting messages that involve a shared understanding of the context in which communication takes place (Aydin, A. D., 2015; Khan, A., Khan, S., & Khan, M., 2017). Asemanyi, A. A., (2015), revealed the same thing that the learning process must be carried out by stimulating the ability to hear, speak, read and write to improve students' communication skills.

An understanding of communication will produce knowledge or symbols that will transmit to each other, and they try to interpret and understand these messages. *Randai* has very unique communication characteristics, namely through an emphasis on the principle of *kato nan ampek*. It means that everyone must pay attention to who he is communicating with. Therefore, the integration of the *Randai* value in learning can train students to communicate in delivering material content and train how to be polite in communicating with friends and teachers.

From the research that has been done, it can be concluded that the art of *Randai* is a medium of literary communication media of the Minangkabau people who is present in the form of folk theater or drama. *Randai* Arts provides the influence of education on the community, especially character education. Educational values in *Randai* art are found in all *Randai* art positions, namely in the process of preparation and implementation of *Randai* performances. In the process of preparing for the Randai performance, *Barundiang* and *Bakarajosamo* had educational value. In the implementation of Randai art, spiritual values were found in the form of *pasambahan*, *Kaba,* and *laku dramtic kato nan ampek*.

The values of *Randai* arts education can be recommended to be integrated in the learning process, especially science learning (Biology). The integration of the value of *Randai* arts education can be integrated into the problem-based learning model so as to create new innovations in the learning model. Innovative problem-based

learning models integrated the value of *Randai* arts education empirically have been able to improve the communication skills of prospective science teachers. So it is hoped that the learning model can be a tool and a means of developing 21st century character and competence of students. Through *Randai* communication skills, critical thinking skills, and creative thinking skills can be developed when *kaba* is staged. *Randai* is not only entertainment, but also provides education, especially value education to the community. All of these educational values are very suitable when integrated into learning. Besides that, the integration of *Randai* arts education values on learning models provides opportunities and experiences for prospective teacher students to better understand Minangkabau culture and as an effort to preserve cultural values which are feared to fade with the times.

Biodata of the Author

Fitri ARSIH was born in Padang, Indonesia. He completed her Senior High School at Padang 10 State High School in 1998. He graduated from the Department of Biological Sciences, Padang State University in 2010, then continued his master's program in the department of biology education at Padang State University in 2008-2010. Currently, she is continuing her doctoral program in biology education at postgraduate state Universitas Negeri Malang . He is a lecturer in biology education at the Faculty of Mathematics and Sciences, Universitas Negeri Padang, West Sumatra Province, Indonesia. His research focuses on biology teacher education and teaching and learning biology.

Affiliation: Postgraduate of Biology Education Universitas Negeri Malang, Biology Education Program, and Biology education at the Faculty of Mathematics and Sciences, Universitas Negeri Padang, West Sumatra Province, Indonesia
E-mail: fitribio@fmipa.unp.ac.id
Phone: (+62)85356103234

Siti ZUBAIDAH was born in Malang, East Java, Indonesia. She is a professor at Universitas Negeri Malang, Indonesia. She completed her bachelor's degree and master's degree in Biology Education at the Institute of Teacher Training and Education (IKIP) Malang. She received her doctoral degree in Agriculture/Biology of Plant Diseases at Universitas Brawijaya Malang, Indonesia. She is interested in Molecular Biological Analysis Techniques, Genetics, and Biology Learning Model Development, Teaching and Learning, Educational Evaluation, Metacognition, and Critical Thinking.

Affiliation: Departement of Biology, Universitas Negeri Malang, Indonesia

E-mail: siti.zubaidah.fmipa@um.ac.id Orcid no: 0000-0002-0718-6392
Phone: (+62)81334435234

Hadi SUWONO was born in Gembong, Central Java, Indonesia. He is an associate professor at Universitas Negeri Malang, Indonesia. He completed his bachelor's degree in Biology Education at the Institute of Teacher Training and Education (IKIP) Malang. He completed his master's degree in Biology at Institute of Technology Bandung (ITB) Bandung and his doctoral degree in Biology Education at Universitas Negeri Malang. He is interested in Biology Learning Model Development, Teaching and Learning, Curriculum Development and Learning, Assessment of Biology Learning and Assessment of Science Learning.

Affiliation: Departement of Biology, Universitas Negeri Malang, Indonesia
E-mail: hadi.suwono.fmipa@um.ac.id Orcid no: 0000-0001-6134-821X
Phone: (+62)8123301210

Abdul GOFUR was born in Sidoarjo, East Java, Indonesia. He is a professor at Universitas Negeri Malang, Indonesia. He completed his bachelor's degree in Biology Education at the Institute of Teacher Training and Education (IKIP) Surabaya. He completed his master's degree in Reproductive Biology at Universitas Airlangga Surabaya and his doctoral degree in Medical science at Universitas Airlangga Surabaya. He is interested in Animal and Human Physiology.

Affiliation: Departement of Biology, Universitas Negeri Malang, Indonesia
E-mail: abdul.gofur.fmipa@um.ac.id Orcid no: 0000-0002-9389-7536
Phone: (+62)81330390937

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