Pedagogical Use of Dramatic Performance Through Science Subject for Peace Education in Paraguay

Martinez David¹, Diah Susanti²*, Ranti Kurniasih³

¹Ministry of Education and Science of Paraguay, Asuncion, Paraguay
²Ministry of Religion Affairs of Indonesia, Ponorogo, Indonesia
³Muhammadiyah University of Ponorogo, Ponorogo, Indonesia

*email: sdiah345@gmail.com

ABSTRACT

This study aims to change the effective learning process and encourage students to be more active and creative. As the main objective of MEC (2005), educating students to become competent members of society is a product of one of the scientific dimensions. This study focuses on drama as a method of teaching values and attitudes in education in Paraguay which must be taught in science because it is part of the basic training of every student. This is also the main objective and responsibility of the school. The studies analyzed relate to ways of making drama performances, as pedagogical practices that teachers can use in enlarging students' science abilities such as student behavior and attitudes to become promoters of peace education. Teachers will easily develop the learning process at various levels in all subjects so that it is more enjoyable. This research explicitly focuses on Dramatic Performance (DP) as a pedagogical tool to emphasize the teaching of values in science lessons. Through interviews, strong evidence was found that learning with drama helps teachers make the classroom more dynamic, fun and participatory. In addition, this method increases students' curiosity, motivating them to actively participate in the learning process.

INTRODUCTION

Education today needs to be globalized and integrated to promote learning values that needed to build a society more tolerant and peaceful. This argument about a new educational paradigm involves a different approach of teaching to face the current social challenges. In order to achieve the goal related to the pillar How to live together, this study argues that it is essential to develop the current principles promulgated by international organizations such as UNESCO, which promote a globalized education based on social values necessary for harmonious and peaceful coexistence. These principles emphasize Education based on new competencies related to students’ values and attitudes beyond knowledge only.

The value and attitude can be represented such as raising of awareness, tolerant, inclusive, secure, and sustainable societies. Whereas these values and attitude is included in the areas of UNESCO’s education sector for promoting peace and Human Right Education (UNESCO, 2016). In the case of Paraguay, the Ministry of Education and Science (MEC),
emphasizes values and attitudes in the national curriculum as well as knowledge and skills that included in science subject. Furthermore, school education should enhance values and attitudes, as well as knowledge and skills, in addition to fostering students’ values and attitudes, which prove necessary for global citizenship.

The main goal of the MEC (2011) is to educate students to be competent members of society as a product of one of science dimension (science as an institution in society). However, despite all that is written in the Paraguayan curriculum about the Education of social values in daily science teaching practice, the opposite can be observed. This study considers that values and attitude should be taught in science subjects due to the value and attitude are part of the basic training of each student, and also schools have increased the responsibility to achieve that goal as the main objective of the whole Education System. Most of science subject emphasize knowledge and sometimes skills as well, but not the social values that are related to the content developed in each class. Educators in Paraguay are in a dilemma in finding ways to teach values because of the inadequate pedagogical tools to carry the task out constructively. The value and attitude should be infused in science subject due to science is part of their daily life. Moreover, by studying science the value, attitude and the knowledge of science will come along.

One of the main concerns for science educators is finding teaching strategies and methodologies that could enhance students’ learning and experiences in science. During the course of the history of science, models have played an important role in science development. Dramatizing of scientific ideas is a particular type of modeling. There are many efforts in categorizing drama in science education. According to the science education dimension (i.e., science as an institution in society, science as a product and the process and the nature of science) Yoon (2004) classify drama in science based on its theme: science concepts drama- represent science facts or knowledge-, science history drama- show memorable scientific event or development process in history of science-, science character drama-uncover scientist’s life story-, science expression drama-focus on artistic expression using science symbols or ne technology, science debate drama- deals with social issue of science and technology. Girod & Wong (2001) revealed that aesthetic in science learning encourages students to engage with science ideas, enhance their motivation to learn, and improve their imagination faculties. Drama could infuse science with excitement, fun, interaction, and emotions including values and scientific attitude (Al Bliwi, 2008). Previous researches show that students can develop many skills, abilities, and attitudes through the practice of theater (Roy & Ladwing, 2015). This artistic discipline develops respect for diversity, tolerance, among others, and empathy.

This research focuses on drama as a method to teach values and attitude in the Paraguayan Education System. Teachers’ methods used frequently in Paraguay will be analyzed through a semi-structured written interview with the participants. This study analyzes ways that Dramatic Performance, as a new pedagogical practice, can be used by teachers in terms of enlarging science capabilities such as the behavior and attitude of students to becoming promoters of peace education. Therefore, this research, seek to investigate the following question: How does Dramatic Performance as a science teaching method for peace education in Paraguayan students?.

Therefore, to address the insufficient knowledge of teachers regarding the pedagogical tools necessary to teach values trough science in high schools, this research proposes a new and helpful methodology employing the use of drama. In this case, this study focuses explicitly on Dramatic Performance (DP) as a pedagogical tool to emphasize the teaching of values in science subject. This research considers that Drama, as an expression of Art, can be developed easily by teachers of different levels, and it could be applied in all subjects as a fun strategy of teaching.
METHOD

This study is designed using the qualitative research method and theoretical research. A semi-structured written interview was given to the participants of this study instead of verbal interviews.

The interview has the following objectives:
1. To obtain the opinion of teachers about the possibility of applying the Dramatic Performance as a behavioral teaching method in science subjects at the high school level.
2. To know the opinion of a professional actress (for both labor and academic field) concerning the advantages of the use of Drama in education. For this investigation, the professional actor will be called an expert.
3. To compare the opinions of the interviewees with the theories about values education.

The answers were categorized into three sections for a better understanding of the data. The categories are as follows: Dramatic Performance as a science teaching method, effects of Dramatic Performance in the field of education, and implementation of Drama in the science learning process.

In order to collect data, two teachers from rural public high-school in Paraguay were chosen for two reasons. First, there were very few high-schools where teachers incorporate dramatic performance (DP) in any teaching. Florencio Zarate High School is nearly the only institution where Drama is implemented as a teaching method. Secondly, one actor/teacher (A) works in this school applying DP in the learning process. This teacher uses the theatrical technique as a teaching method in different subjects for 13 years’ experience. This research used simple random sampling technique method to collect data and direct interview with participants. By using this simple random sampling, there was chosen the second participant (B), a teacher without experience doing drama with 19 years’ experience teaching.

Margarita Irun, a professional actress, and director of Drama and movies were also consulted to know her point of view regarding the topic under study. Irun is an actress with more than 50 years of experience in Art and education at both the national and international levels. That was the reason why this study considers this expert, as the chosen participant, the most qualified in this field.

RESULTS AND DISCUSSION

This section summarizes findings and contributions made by this research in terms of knowing the impact of the use of dramatical performance in the educational field. This analysis found evidence based on the experiences, ideas, thinking, and beliefs of the interviewees about the topic under study. Therefore, the theory provided by the literature review supports this analysis. Three sub-topics develop the key findings as following:

Dramatic Performance as a science teaching method.

Various studies have indicated that there is a strong relationship between dramatic performance and science education. Art and science education can be complemented to generate an efficient and effective pedagogical strategy for educators in the teaching of values and attitudes. This interview provides strong evidence that Dramatic performance can be implemented in high-schools as a science teaching method. According to the participants, Drama is a technique characterized by being innovative, dynamic, and easy to use. They agree that Drama could provide educators with significant and useful pedagogical resources to teach science in different topics at all levels and subjects. According to the Saricayir (2010) by making learning more fascinating, relevant, meaningful drama may become a primary contributing factor in the teaching and learning of any topic since it help students to learn what is covered. In the classroom in an integrative manner, which, in turn, increase the
likely hood of information to be stored in long term memory and to be regained better in the future.

The consulted participants believed that this artistic technique’s implementation in the science teaching process could help them to offer a better quality of education to improve students’ knowledge, skills, and abilities. This multi-dimension effect of Drama makes this technique unique compared with others. Drama’s impact in the science learning process goes beyond the theory because it also offers real experiences for students to learn by doing in different fields. In this sense, Margarita Irun defines dramatic performance as a cultural activity that can offer learners a living experience through the interaction among different realities of the context. It means her definition of drama method has a meaningful learning and collaborative approach in the pedagogical process.

Specifically, Irun has said,

“Drama is a cultural and artistic expression that can be used in the educational field as an interesting, fun, and effective method of teaching.”

Mostly she is saying that teachers, who do not know which method to use to make the learning process unique, can choose this type of artistic expression as a good option. Participants of this research also provide substantial evidence concerning the vital role that the drama method plays in the improvement of teaching methods in Paraguay. In this sense, the interviewee A (teacher with experience teaching art) says that,

“Drama as a teaching method allows students to develop several skills such as conceptual, procedural, and attitudinal dimensions. Teachers can use this method to promote values that connect to the content of each subject.”

The benefits of using Drama in the education field are supported even by teachers without experience in Art (interviewee B) that said in an interview for this paper as the major benefit of using Drama is that,

“…it makes students learn different real-life situations by practicing on stage in a fictional world. This experience motivates students to learn by doing beyond the repetitive and traditional educational approach. This experience of learning develops a deep level of empathy and other important social values.”

Dramatic performance practice in schools has a centered student approach. Interviewee B said that theater is a dynamic and innovative pedagogical strategy that can place students at the center of the teaching process, as many theorists and scholars suggest. According to many paradigms such as constructivism and meaningful learning, students must be the protagonists of their learning process. The use of creative Drama in the classroom is a student-focused process where experiential learning can be fostered and developed within any given curriculum (Okvuran, 2014). The participants agreed with this important feature for the current education process.

The Education System in Paraguay for high-schools establishes a set of competencies and capacities that students must achieve at the end of science lesson, unit, semester, or year (MEC, 2011). According to the point of view of interviewee B, Dramatic Performance can help to achieve these mentioned educational capacities because it can place students in the center of the learning process and therefore achieve those objectives related to personal development. Drama can make students participate actively in the values teaching process as a protagonist of their learning construction. This way, learners can transmit the domain social values in both local and global contexts.

In this era, characterized by innovation, teachers should take the challenge of implementing other techniques in the classroom. They have to understand that they need to change the traditional approach that persists in many Paraguayan schools. The expert consulted, Margarita Irun, says that,
“Teachers who implement Drama in the classroom broke the traditional way of teaching and make students experience different real-life situations that encourage them to manage social conflicts. This process is developed under the educational theory called learn by doing. This innovative teaching process aims to achieve a meaningful and useful learning process.”

According to Irun, using Drama to teach in schools can help develop students` emotional, physical, and attitudinal skills. Attitudinal skill is considered a human capacity that humans need to face issues they find in their social lives. This expert argues that dramatic performance aims to discover the students` ways of feeling and acting. Furthermore, the students develop positive attitudes, and especially trust in the norms, values and rules of scientific as well as artistic practice. This artistic process develops capacities to enhance awareness about the importance of learning and promoting social values related to peace at both the local and the global level.

Based on the analysis of the teachers` opinion (one teacher with experience in drama field and other one without it), both of them agree that the use of Dramatic Performance is feasible as a pedagogical method of teaching behavioral content in high school. These participants said that practicing Drama in high schools can make students develop many skills such as empathy, group cooperation, imagination, and curiosity. These skills mentioned above can improve other students` abilities by making them ready to address different real-life issues. All of these values inculcated to students can strengthen basic training for students and therefore improve awareness of social values about the importance of a culture of peace. When group members improve a culture of peace, society can be a better place for them to live together in both local and global contexts. That is the reason why this study focuses on social values (which are related to the behavioral objectives of the Paraguayan education system) that are usually forgotten by teachers. Most of teachers are focus on transfer of knowledge rather than social values. The learning science through drama plays an important role as it can create whole network of knowledge and collaboration between different community, in order to create new knowledge but also to realize that students have to connect their knowledge to everyday lives by learning about science through all disciplines and learning about all disciplines through science (Smyrnaio & Georgakopoulou, 2017).

**Effects of Dramatic Performance on the field of education.**

The interviews showcase the teachers` perceptions about the effect drama have on the field of education. The interviews show strong evidence that this technique helps teachers to make classes more dynamic, fun, and participatory. This kind of method enhances students` curiosity, motivating them to participate actively in the teaching process. The participants believe that students learn more in a participatory class, and they argue that this environment is proper to teach contents of any nature, especially those related to personal development and life skill in society.

The participants say that Drama practice impacts students` lives in a way that other techniques cannot. They argue that the mentioned method makes learners: improve self-confidence, develop empathy and respect, enhance mutual respect, address conflict resolution, and enhance awareness about the culture of peace. Margarita Irun`s interview provides evidence that the drama method helps teachers to explore human emotions, create a harmonious coexistence, and motivate students to manage social conflicts. She believes that by developing these abilities in students it is possible to enhance and expand the commitment to peace.

Within the literature, various benefits of drama were expressed in terms of improving aspects such as creativity, critical thinking, social skills, self-confidence, empathy, and problem-solving and morality development (Okvuran, 2014). This art expression implementation in the classroom can help students to develop useful abilities in terms of
learning concepts, developing social skills, and practicing values in a fun and interesting way, as was expressed by Margarita Irun. Working on school performance as a way of peace education can further the aesthetic mode of knowing. The performance can provide the space to experience peace in different representations (Schonmann, 2000).

Another effect of drama is related to the development of personal skills that can make students more sensitive and ready to be active members of the integration process in the local and global contexts. Margarita Irun, based on her experience, says that,

“dramatic performance implementation as a teaching method can make students explore emotions, find their own identities, recognize differences among others, and practice respect for others.”

In the words of the expert, dramatic performance is a space where students can ask questions, alters routines, break stereotypes, and manage social transgressions looking for the truth. By educating critical, responsible, and respectful students in each classroom, a citizen is instilled in the potential practice of peace in the environment outside of schools.

The school context provides an ideal space for exploring ideas of peace and other social values. However, to achieve this goal, it is important to train teachers that can motivate students to develop critical analysis, reflection, dialogue, and collaborative learning. Song (2012) further suggests that it is essential to develop a more modern view of pedagogy to face the current needs of the students. In this sense, the results of the interview supported by the theory provide evidence that the drama method can improve students learning process because this is a safe space where students can experience new ideas and develop insights and understandings of complex values such as peace.

The career interest and science-related attitudes of science majors were found to have significant improvement; some students’ perception toward science careers and science have changed after creative drama activity. Studying science through drama may help students view science as a human, social experience that involve and motivates them to develop an understanding of the world, which is rooted in scientific and the humanistic traditions (Najami et al., 2019). Ødegaard (2003) notes that use of drama and. Theather (including an audience) are two humanistic methods for penetrating into the heart of science. The process of switching a model of description from a textbook to a three-dimensional live model requires the students to re-conceptualize their knowledge. Besides drama can be useful activity in the classroom to break the continuity and monotony of regular classes and as a tool to bring about emotion and to stimulate class discussions.

**Implementation of Drama in the science learning process at school.**

In terms of knowing the feasibility and viability for the use of the dramatic method to support the teaching practice, results of the interview provide evidence that this implementation of Drama in school is necessary because:

- It is valid to teach social values.
- It is fun and generates interest in students.
- It promotes a culture of peace.
- It develops scientific behavioral capacities.
- People of all ages can practice Drama.
- It can achieve the main goals of the Paraguayan Education System related to values.
- Integrates different values.
- Integrative model of teaching approach.
- Can Promote Universal values.

However, the participants argue that to implement drama in schools, the following are necessary: enthusiastic principals and teachers, commitment to changing the traditional approach to education, the creativity of the participants, allocate more time for the development of each subject and specialized training about theatrical techniques.
Based on her experience, Margarita Irun argues that,

"... drama implementation in high-schools requires teachers with the following characteristics: good ability to select content properly, creativity to explore topics through Dramatic Performance, and proper expression technique management to show the students what performance is."

Considering that not many science teachers have these qualities, the expert suggests the necessity of specialized training for them. Thus this way, teachers of science subjects can develop content by using drama, making the science learning process interesting and fun. The expert also says that if the government wants to follow the goals of the five pillars, the authorities within the education system must offer teacher training focused on new methods of science teaching. This way teacher can deliver a better quality of values to enlarging the science capabilities and achieve the current educational goals. However, the expert considers that the most important things are to be enthusiastic and dynamic, to face pedagogical challenges such as learning from and with their students by doing drama.

The result of this study indicated clearly that science teachers and many teachers of different subjects could use Dramatic Performance because the method is very innovative, dynamic, and motivates students to participate actively in the learning process. The interview also provided evidence that Drama is a very effective method that can help teachers to deliver a more interesting class because it is a fun and flexible way to teach different concepts, skills, and values. This method helps educators to discover a various number of skills in students, integrating the students with others from different background, and promoting values such as tolerance and empathy.

**Discussion**

Throughout the development of humanity, education has been the most potent instrument of peace to achieve harmonious coexistence between different societies. Education constitutes an effective way to access all the cultural goods that society offers potentially. This process also has been the key to breaking the cycle of poverty as a fundamental determinant of employment. Education is a crucial factor for the development of societies and the integration among them. This factor is fundamental to promote respect and tolerance among members of diverse cultures.

According to the Global Citizenship Education Development (GCED) paradigms there are three domains of learning for current worldwide education. These domains are: cognitive, socio-emotional, and behavioral. The cognitive level includes the knowledge and thinking skills necessary to understand the world and its complexities better. Socio-emotional refers to values, attitudes, and social skills that enable learners to develop affectively, psychosocially, and to enable them to live with others respectfully and peacefully. Finally, behavioral content includes conduct, performance, practical application, and engagement (UNESCO, 2015).

The three domains of learning suggested in GCED, mentioned above, are interconnected and integrated into the Education process. UNESCO’s is guided by the Education 2030 Agenda and Framework for Action, which calls on countries to ensure that all students are educated with the knowledge and skills to promote sustainable development. This new educational approach instills human rights, gender equality, and promotion of a culture of peace, non-violence, global citizenship, and respect for cultural diversity.

The Paraguayan Education System was designed based on five pillars, instead of the four suggested by UNESCO; and, it also adopted the three domains of learning proposed in GCED 2030 agenda. The Paraguayan curriculum aims to educate students from different levels in these three domains (MEC, 2011). Despite efforts of the Ministry of Education of Paraguay, teachers have not yet managed to strengthen the development of the three domains in their daily practices.
Teachers in Paraguay need a new understanding of the role of dynamic teaching methods in the current educational approach. The teachers must place students at the center of the learning process to guarantee the development of the three domains. However, many teachers do not have enough knowledge about the existence of innovative methodologies to focus on the education of values in the classroom. This issue must be considered by the Ministry of Education when offering training opportunities.

In the case of Paraguay, social problems are the result of a poor quality of education. This situation is because the vision of the MEC of Paraguay tends to be retrospective instead of prospective. Also, the teaching methods used by many teachers in Paraguay remain traditionalist models of past centuries that are already obsolete and useless. Education must address the current needs of the students to have a good impact on society.

Despite the weak effort of the MEC to modernize schools under a new paradigm, in many schools, the teaching method is still based on the classic model. Another mistake of the Paraguayan educational authorities is to consider the educational process as a phenomenon isolated from other social aspects. Until now, the content has been considered the center of education, and not the students. If the Government wants to build a school based on new paradigms with a better quality for all, it must reestablish the education in all aspects (Perez, 2005).

In Paraguay many teachers have a lack of knowledge about which personal development method to address behavioral issues. This situation means that the teachers focus on the theoretical contents only. In the case of this country, the Ministry of Education of Paraguay offers training about teaching methods, but these courses do not involve how to teach behavioral content. The mentioned situation is one of the reasons why society has a big crisis of values these days. The educational authorities in Paraguay always demand of teachers quantity and not quality, which means they have to focus their job in developing concepts only. This matter will impress that some subjects in the school, which elaborate kind of abstract thing, such as science is not interesting and difficult to understanding. In the end, either social value or main knowledge each subject is not delivered completely. Hence, teacher only delivering theory without inserting social value which covered in the fun teaching method.

One of the remarkable results from this research is that the interviewee argue that drama activities may positively affect students’ attitude towards science learning to achieve peace education in Paraguay. Teaching using drama method and creating a link to everyday life can help students gain a better understanding. It had a positive effect on students understanding of many scientific topics and motivated students to learn more, because it was linked to their daily lives. Based on previous research, Najami et al (2019), they have been conducted interviewed with some students regarding the using drama in chemistry subject. Some students argued that they will use the drama method for teaching science in the future, because it influences students and associates the learned with real life. The drama method is appropriate for the population they have to teach and can make them appreciate subject more.

In addition to achieve peace education through science this research has been proven that drama are two humanistic methods for penetrating into the heart of science. The process of transferring a model or a description from textbook to a three-dimensional live model requires the students to re-conceptualize their knowledge. Drama involve teamwork, and such as, promotes communication and cooperation among learners (Catherine, 2009; Peleg & Baram-Tsabai, 2009). Besides, drama is capable of promoting students’ understanding and that it enhance their learning by exploiting group work. Moreover, McCaslin (1996) mentioned that the use of drama as a teaching strategy in the classroom would help teachers meet the need of the students with different learning styles or special needs, since drama enable students to participate without embarrassment or fear. Drama imposes self-discipline
among the participants and help support, encourage, and protect every individual’s rights. In other hands, students should obey and adhere to the group’s rules. When self-discipline is achieved, every member of the group has the right to pursue their own objectives and interests, while respecting the rights of others. Whereas it could lead for getting the peace education in the society.

The results in this research are supported by Okvuran’s study (2014) in defining Drama as a student-centered teaching method that makes learners active and ensures continual learning by learning-by-doing and having fun. Findings also agreed with the study of Schommann (2000), portraying that Drama is a method that provides a space to explore new ways of knowing. These theories support the relationship between Drama and education.

Study findings also showed evidence that drama application as a science teaching method is easy to use, delivering all kind of information and developing behavioral contents related to values and attitude. The consulted expert in Drama said that this method develops expressive capacities, and enables students to live out real-life situations in a controlled environment. These participants’ beliefs are supported by the study of Malm and Löfgren (2007), who said that the current education system has to focus on social conflict solution, empathetic attitude, and respect for individual and democratic values to build a peaceful place to live. For this reason, it is crucial to choose the correct method to achieve these mentioned goals, and based on the analyzed evidence, this paper argues that Drama is the best option in terms of pedagogical resources.

Other evidences of this study illustrate that drama education effects emphasize new competencies related to students’ values and attitudes. This technique also improves individual development educating students to be more integral members of society. The participants emphasized that dramatic Performance explores human emotions, enhances mutual respect, addresses conflict resolution, helps students learn through experience, enhances and expands the commitment to promote social values, and raises awareness about the culture of peace. These results in ties with the main goals of the Education System in Paraguay (2011) and the current principles promulgated by UNESCO, that aim to promote a globalized education based on social values.

These mentioned reasons must make teachers reflect on the vital role that the method of teaching has in the learning process. Based on the current educational approach, the students have to be placed at the center of the learning process. Active participation from the students provide a sense of meaning for learners and it useful especially when the subject matter is complicated and abstract. This reason is why teaching practice does not have to still be a traditionalist in terms of the usage of pedagogical resources. Teachers of different subjects have to develop contents exploring students’ abilities and behavior beyond theory only. Students have to learn how to live together, promoting critical social values such as peace. Referring to the use of drama in science education, a number of studies at middle school show that when guided by reflective science teachers, drama could offer empowering learning environments for students (Tveita, 19996; 1998; Bailey and Watson, 1998; Ødegaard, 2003; Lerman, 2005).

The participants, based on their experiences, offered evidence about how Drama Performance should be implemented as a method of teaching:

- People of all ages can practice it.
- It is an integrative model of teaching.
- It is valid to teach social values.
- It develops scientific behavioral capacities and a culture of peace.
- It can achieve the main goals of the Paraguayan Education System related to values.

The experienced actress Irun mentioned that to achieve these goals related to how educate social values through Drama, schools need well-trained teachers in this area. That is
why the Ministry of Education of Paraguay has to offer specialized teaching training based on the needs of the teachers and students in general. According to the expert to implement Drama in high schools in Paraguay, it is necessary to have: commitment to the change traditional approach of the education, enthusiastic principals and teachers, training about theatrical techniques and creativity of the participants. Based on Osama (2016) the role of drama activities may in creating collaborative learning, reducing students’ anxiety towards their ability to. Learn science and increase their motivation towards learning science learning.

CONCLUSION
This study explored the pedagogical use of dramatic performance through science subject for peace education. Results attained in study support using drama activities to bring about positive changes in students’ attitude towards science learning and their understanding of scientific concepts. This research powerfully demonstrates that using drama can change entirely traditional view of science teaching class from being rigid and monotonous to being lively and entertaining.

One remarkable results of the current study is that Drama has many educational advantages and benefits, such as innovative, participatory, dynamic, fun, and flexible. Because it is student-focused, this method of teaching is considered an essential theatrical technique to develop several skills in students. Also, this method is advantageous and versatile to teach several topics in schools because it motivates learners to live different experiences of the real-life in the classroom.

Finally, the results also show that there exist some limits to applying Drama in schools, such as the lack of knowledge teachers have regarding the management of innovative, participatory, and integrative methods of teaching. Also, the limited time allocated to each subject in this educational level (40 minutes equals one pedagogical hour) can make it difficult for many teachers to use this teaching method, especially for those who are not experienced in this area.

Under the results obtained from the study, some suggestions are given. Future Drama, values education, peace promotion, citizenship education, and other interactive methods must be implemented in teacher-training programs by the Ministry of Education of Paraguay. Also, the educational authorities have to be more flexible in terms of the freedom that teachers need to explore different methods and demand them to include topics related to the individual development of students. This new educational approach is a new way how to instill in learners social values needed to build a more peaceful place where everybody can learn how to live together.

REFERENCES
Gaunt, J., Morgan, N., Somers, R., Soper, R., & Swain, E. (2009). Handbook for Information Literacy Teaching (HILT). Cardiff University.
Lase, D. (2019). Pendidikan di Era Revolusi Industri 4.0. SUNDERMANN: Jurnal Ilmiah Teologi, Pendidikan, Sains, Humaniora Dan Kebudayaan. https://doi.org/10.36588/sundermann.v1i1.18.
Bailey, C. H., & Watson, R. (1998). Establishing basic ecologic understanding in younger pupils: A pilot evaluation of a strategy based on drama/role play. International Journal of Science Education, 20, 139-152.
Catherine, C. (2009). The Drama of Science. Science in School. 13, 29-33
Girod, M., & Wong, D. (2001). An aesthetic (Deweyan) perspective on science learning: Case studies of three fourth graders. The Elementary School Journal, 102(3), 199-224. http://dx.doi.org/10.1086/499700.
Güner, P., & Uygun, T. (2016). Investigation of Learning in Creative Drama-based Classrooms through Community of Practice. 5(2), 557.
Heikkinen, H. M. (2016). Drama and citizenship: devised drama for education. Journal of Social Science Education, 15(4), 32–39. https://doi.org/10.2390/jssse-v15-i4-1497

Lerman, Z. M. (2005). Chemistry: An inspiration for theater and dance. Chemical Education International, 6(1), 1-5.

Malm, B., & Löfgren, H. (2007). Empowering students to handle conflicts through the use of drama. Journal of Peace Education, 4(1), 1–20.

McCaslin, N. (1996). Creative Drama in the Classroom and Beyond (6th ed.). New York: Longman Publishers.

MEC. (2011). Plan Nacional de Educación 2024. Hacia el centenario de la Escuela Nueva de Ramón Indalecio Cardozo. Ministry of Education of Paraguay.

Najami, N., Hugerat, M., Khalil, K., & Hofstein, A. (2019). Effectiveness of teaching science by drama. Creatie Education, 10, 97-110. DOI: 10.4236/ce.2019.101007

Odegaard, M. (2003). Dramatic science: A critical review of drama in science education. Studies in Science Education, 39, 75-102.

Okvuran, A. (2014). Sustainability in Drama. Creative Education, 5(19), 1720–1724. https://doi.org/10.4236/ce.2014.519191.

Osama, H. A. (2016). Drama-based science teaching and its effect on students’ understanding of scientific concepts and their attitudes towards science learning. International education studies, 9(10) 163-173. DOI: doi:10.5539/ies.v9n10p163

Peleg, R., & Baram-Tsabari, A. (2015). Understanding Producers’ Intentions and Viewers’ Learning Outcomes in a Science Museum Theater Play on Evolution. Research in Science Education, 46, 715-741. https://doi.org/10.1007/s11165-015-9477-7

Roy, D., & Ladwig, J. (2015). Identity and the Arts: Using Drama and Masks as a Pedagogical Tool to Support Identity Development in Adolescence. Creative Education. 6(10), 907.

Schonmann, S. (2000). Playing peace: School performance as an aesthetic mode of knowing. Contemporary Theatre Review, 10(2), 45–60.

Smyrnaivou, Z. &. Georgakopoulou, E. (2017). The Learning Science Through Theatre initiative in the context of Responsible Research and Innovation. Systemics, cybernetics and informatics journal, 15(5), 15-22.

Song, Y.I.K. (2012). Educating For Peace: A Case Study of A Constructivist Approach To Understanding Peace Through Artistic Expression. Creative Education, 3(1), 79.

Tveita, J. (1996). The drama model of electricity. 8th IOSTE Symposium. Edmonton, Canada.

UNESCO. (2016). Learning to live together sustainably: Trends and Progress. https://en.unesco.org/themes/gced/sdg47progress

UNESCO. G. C. E. (2015). What is global citizenship education?. https://en.unesco.org/themes/gced/definition

Yoon, H. (2004). Science Education Using Science Drama. Proceedings of the 46th conference of The Korean Association for Research in Science Education, 26-43).