

Multigrade Teaching: A Solution for Teacher Shortage and Educational Quality Improvement in Indonesia

Teguh Triwiyanto

(Universitas Negeri Malang, Indonesia)

Abstract: This research aimed to identify the background, purpose, implementation stages, and the aspects of educational management of multigrade teaching. This research was conducted using qualitative design via case-study approach. The research was located in Blitar Regency, East Java Province. The data analysis was performed intensively during the research, both during and after the field observation. The data validity test was conducted by the techniques of credibility, transferability, dependability, and confirmability. The multigrade teaching is done due to teacher shortage and teacher distribution to get the optimum educational quality. The purpose of multigrade teaching is to optimize the available resources with the limited number of teachers and with an expectation to provide educational service on a larger scale. The most critical stage of multigrade teaching is classroom implementation since it involves many parties with many interests. The aspect of educational management in multigrade teaching in Indonesia includes the exercise of regional government authority regarding teacher management based on the consideration of teacher working period, age, domicile, competence, qualification, and performance.

Key words: multigrade class; teacher shortage; educational quality; Indonesia

JEL code: I280

1. Introduction

Multigrade teaching is commonly implemented in remote areas due to the shared circumstances of teacher shortage and relatively small numbers of students. Multigrade teaching involves a teacher teaching students from two or more grade levels in the same learning process and at the same time. A remote area is a village or an area of a remote village, which is located far from the district capital and hard to be accessed by land transportation. The locations of remote schools in Indonesia are usually determined through a decision of the district head. Kucita, Kivunja, Maxwell, and Kuyini (2013, p. 206) stated that all of the stakeholders find the benefits of multigrade teaching for villagers and remote communities regarding the number of children accessing education. The results of a study conducted by Hargreaves, Montero, Chau, Sibli, and Thanh (2001, p. 499) showed that Peru, Sri Lanka, and Vietnam are three countries that have a commitment to improving the multigrade classroom situation that is affected by isolation and dispersion, the lack of facility, teachers with inadequate background, limited condition of teaching in the classroom, and poor learning strategy.

Multigrade teaching is a policy established by the local government as a solution for teacher shortage so that

an optimal educational quality can be developed. Besides that, it also aimed to provide a larger opportunity for students to receive an education. It is expected to be able to draw up the learning methods and gradually develop the quality of students' learning outcomes and to reduce school drop-out rate and grade repetition rate. Therefore, it will automatically improve the enrolment ratio, cohort default rate, and learning mastery.

Multigrade teaching can be easily spotted in remote and isolated areas as a common feature of their educational policy. Berry (2001, p. 537) conducted research on the development of multigrade class and single class students' reading ability in a small Caribbean island, and the results pointed out that multigrade classroom is effective to promote the development of the students who have a low reading ability. Aksoy (2008, p. 218) revealed that, in Turkey, multigrade teaching is an inevitable practice because of the limited number of students and classrooms in small remote areas with low populations, which is considered as a system that needs to be replaced. Autio and Deussen (2016, p. 77) mentioned that one-third of schools in the United States are located in rural areas. Therefore, there are rural characteristics that influence the education, namely a smaller average class size, geographic isolation, and a lack of access to teacher professional development. Such conditions require strategies to be resolved, one of which is multigrade teaching.

Teachers who teach multigrade classes have unique characteristics regarding with knowledge and ability that are different from teachers teaching in single classes. Little (2001, p. 481) stated that not only multigrade class teachers but also all teachers should have adequate knowledge about multigrade teaching strategies. Kyne (2007, p. 501) pointed out that the relevant and necessary professional knowledge and abilities required of teachers who teach single classes are also relevant and necessary to be required from teachers who teach multigrade classes in order to teach effectively. However, many of such abilities need certain emphases in the context of teacher preparation to teach multigrade classes. Beihammer and Hascher (2015, p. 104) presented that multigrade teaching can be implemented and can effectively support students' learning process if the teachers are well-trained in order to improve their professional ability awareness that is necessary to obtain a quality learning process in multigrade teaching.

Multigrade teaching, which was initially triggered by institutional constraints, turns out to be beneficial especially in term of the availability of educational access for rural communities who are likely to be excluded from the system of education. Sergio and Edgar (2017, p. 80) said that multigrade class is considered as an efficient intervention to give educational access for children who are likely to lose the opportunities to obtain an education. Susen and Michael (2016, p. 52) mentioned that multigrade teaching provides the opportunity to meet different needs of the various kinds of students by providing different instructions. Beihammer and Hascher (2015, p. 104) presented that multigrade teaching can be implemented and can effectively support students' learning process. Wilkinson and Hamilton (2003, p. 221) pointed out that multigrade class elementary students in New Zealand showed a slightly lower reading performance compared with the students from single classes.

According to the explanation above, this research aimed to describe the background, purpose, stages of the implementation, and the aspect of educational management of multigrade teaching in Indonesia.

2. Method

This research was using a qualitative design via case-study approach. The research was located in Blitar Regency, East Java Province. The data were collected through observation, documentation, in-depth interview, and group discussion forum on 28 subjects consisting of Education Department officers, regional civil service

agency, supervisors, and school principals.

The data analysis was done intensively during the observation, both during and after the field observations. The final analysis was conducted after all the necessary data have been collected or after the period of the field observations. The researchers depicted and constructed the data. Hence, the researchers have a role in explaining the occurred process, state the quality of the data, explain the superiorities and drawbacks of the data, and explain whether or not the implemented process has met the generally accepted principles.

In order to ensure the validity of data of this qualitative research, a validity test was done based on certain criteria as suggested by Lincoln and Guba (2002, p. 300), namely credibility, transferability, dependability, and confirmability.

3. Results

The considerations that are taken to implement multigrade teaching are to overcome teacher shortage in order to reach an optimum quality of educational service, to provide a larger opportunity for students to receive education, to develop a learning method in the effort to improve the quality of students' learning outcome, to reduce the dropout and grade repetition rates, and to improve the enrolment ratio, cohort default rate, and learning mastery.

The purpose of multigrade teaching is to optimize the current resources with a limited number of teachers with an expectation to provide educational service on a larger scale, to allow the government and communities to reduce education fee, to develop students' independence through the method of peer learning, to give benefit for the student in receiving education from a similar teacher for a longer period, and to provide a more natural learning atmosphere since the students can study based on their levels of ability and can develop their tolerance towards other people.

The implementation of multigrade teaching was initiated from the establishment of an implementation team to conduct teacher management in sub-district level in the form of a decision of the head of the local department of education. Secondly, recommendations of school teacher management policy in sub-district level are identified based on the agreement reached in public consultation. Third, the implementation grouping of the policy, namely the formulation of regulations/technical guidelines and design of implementation based on specific targets (subdistrict, school, and teacher). Next, the student and teacher data were verified for the need of teacher mapping. Finally, the implementation procedures of teacher management were determined.

There are some aspects of educational management found in multigrade teaching. First, the implementation of the regional government authority regarding teacher management with the considerations of teachers' working period, age, domicile, competence, qualification, and performance. Second, the considerations about the overall number of students in each school and teachers' workload in a week are needed to improve the effectiveness of teacher management and to reduce the negative impacts. Third, the policy framework is designed based on the regulations supporting the implementation, the policy of minimum educational service standards, relevant regulations, teacher workload, and teacher certification.

4. Discussion

Multigrade teaching is implemented due to the issues of teacher shortage and teacher distribution to achieve an optimum quality of education. Luschei and Chudgar (2017, p. 109) stated that teacher distribution is related to

the promising effort to synchronize the supply and demand that is aimed to ensure bigger access to education for students in remote areas supported by quality teachers. Ilka, Uwe, and Larissa (2016) stated that multigrade class is an economical strategy to provide education, and it has an essential role in educational policy regarding demographic changes. The causal effects of multigrade class on schools and short-term labor market created a significant loss regarding the final achievement, labor market participation, and socio-economic mobility.

In line with the above explanation, the findings of this research presented that the considerations of multigrade teaching implementation in Indonesia, i.e. to overcome teacher shortage so that an optimal educational quality can be developed, provide a larger opportunity for students to receive education, develop a learning method in order to improve the quality of learning, to reduce the dropout and grade repetition rates, and to improve the enrolment ratio, cohort default rate, and learning mastery. Rosser and Fahmi (2016) explained that Indonesia is facing serious challenges regarding the number, cost, quality, and distribution of teachers. For the last few decades, the political and bureaucratic elites have utilized the school system to collect the resources, distribute patronage, mobilize political supports, and perform public control rather than to maximize the educational and equity performance.

The effort of teacher distribution in Indonesia has been a constant issue. The teacher has become the main topic of discussion instead of education. Almost all of the educational policies established in Indonesia face teacher-related issues, including the policies regarding curriculum, financing, facilities and infrastructure, and students. Hernawan and Cynthia (2011) revealed that curriculum holds a vital role in achieving the educational purpose since it is conservative, creative, critical, and evaluative. However, the curriculum establishment is followed by an urgent problem about teachers' unpreparedness. Education cost, such as school operational fund, has frequently triggered problems regarding its allocation for teacher welfare. The obstacles in the procurement and utilization of school facilities and infrastructure become some barriers to improving educational quality. Even student policies are often in conflict with the teacher interests.

For maritime countries like Indonesia, the multigrade class is a rational option, although different regencies/cities give various responses to such policy. Teacher distribution becomes the authority of local governments as an effort of education decentralization and autonomy in Indonesia. Such condition is considered as a dilemma according to Duflo, Dupas, and Kremer (2015, p. 92) since some of the policymakers focus their attention on reducing the teacher-student ration, while the others think that it will not give any significant effects without a systematic reform of educational management, incentive, and teacher competence.

The implementation of multigrade teaching, in agreement with the results of this study, is aimed to maximize the available resources with a limited number of teachers with an expectation that it can provide a larger scale of educational service. Therefore, the governments and communities could reduce the cost of education and improve students' independence through the method of peer learning. It also can give benefits for students because they can receive education from the same teacher for a longer period, and they will learn more naturally since they could learn based on their level of ability. Besides, it also builds students' tolerance with others. An excellent educational management is necessary to efficiently and effectively achieve the purposes. Enayati, Zamani, and Movahedian (2016, p. 165) pointed out that the effectiveness of multigrade class depends on the class management in order to implement the education policy on all school aspects. Multigrade class should be regarded as an opportunity for such implementation. Thus, the application of educational technology is one effective way to manage the classrooms so that it could facilitate the learning process and improve the performance of multigrade classes. Bogetic and Chattopadhyay (1995) said that it is important to maintain the

efficiency of classroom utilization in rural areas with a small number of students and a low-class use. It is possible to consolidate the existing classes into multigrade classes and reduce the number of teachers, while still maintaining the learning quality maximizing the use of fixed input, such as a classroom.

In order to achieve the purpose of multigrade teaching, the teacher good ability in planning, implementing, and evaluating the learning process in classroom dynamics becomes one important and relevant issue in the course of human resource development and international competition. The classroom dynamics requires qualified teachers. Teacher quality significantly depends on his/her educational background. Anthony, Hunter, and Hunter (2015, p. 108) think that learning dynamics are closely related to the teacher mastery standards that reflect the vision of teacher education program including the opportunity to experiment, and to be directly involved in students' learning outcome, and the occupational risks. Such visions support the development of teacher professionalism that is tailored with teacher adaptive ability after being teachers.

The level of teacher welfare also becomes the principal consideration in regrouping schools in one complex and teacher redistribution. Teachers who cannot meet the weekly working-hour requirement would have their income reduced. Liao and Yuan (2017, p. 71) pointed out that teacher distribution policy is more likely to be successful if it offers some benefits for the teachers involved so that it could firmly oblige the teachers to work for schools with a high need for teachers and provide the necessary administrative requirements to ensure teachers' well-performance. Also, as said by Luschei and Chudgar (2017, p. 87), teachers' age, experiences, and gender influence their preference and decision about the location of teaching. Moeini, Moradian, and Khoroshi (2016, p. 197) stated that along with the occurrence of certain social, economic, and cultural conditions, the system of education has been ready for multigrade class. The special condition in multigrade class frequently causes negative attitude from teachers toward it. However, the advantages offered by a multigrade class would give an appropriate intervention on the curriculum.

Besides teacher quality and welfare, and certain social, economic, and cultural conditions, teacher pedagogic method is also one supporting instrument for the success of a multigrade class. The results of a study conducted by Conn (2014) that include six countries, namely Kenya, Nigeria, South Africa, Uganda, Burkina Faso, and Madagascar, showed that it is necessary to emphasize the development of the pedagogic method used in multigrade classes. Sampson (2016, p. 83) pointed out that the reading lesson given in a multigrade class develops students' emotional, intellectual, social, and academic welfare.

The most critical stage in the implementation of multigrade teaching is during the learning process in the classroom. In Indonesia, the stage of multigrade teaching is initiated with the establishment of an implementation team for sub-district level teacher management in the form of a decision of the head of the local department of education. Subsequently, the recommendations for school-level teacher management policy, which were made through public consultations, are identified. After that, the process is continued by grouping the implementations of the policy, namely through the formulation of regulations/technical guides and designs of implementation based on specific targets (districts, schools, and teachers). Next, the steps are followed by the verification of the students and teachers' data for the need of teacher mapping. Finally, the stages are ended by setting the steps of teacher management implementation.

The unique nature of multigrade class requires a sufficient aspect of educational management with the resources that support the curriculum, teachers, students, facilities and infrastructures, financing, community participation, and school culture. The results of the research showed that the aspect of educational management in multigrade class in Indonesia is to exercise the authority given to the local government regarding teacher

management with the considerations of teachers' working period, age, domicile, competency, qualification, and performance. Also, the consideration of the numbers of learning groups in each school and the numbers of teachers' weekly working hours are also needed to improve the effectiveness of the teacher management and to reduce its adverse effects. A policy framework which is implemented based on the supporting regulations of the implementation, the policy of minimum standards of educational service, the relevant rules, the requirement of teacher working hours, and teacher certification is necessary to implement the educational management of a multigrade classroom.

The aspect of educational management of this multigrade classroom faces challenges related to the lack government attention, different needs of students, physical environment, leadership, and special needs of a multigrade classroom. Petrus (2016) pointed out that the most crucial issue is that the multigrade teaching lacks attention, especially about the norms of new employment, notwithstanding the fact that such phenomenon needs to be regulated permanently. Susen and Michael (2016, p. 52) stated that multigrade classroom gives opportunities to overcome different needs of students by varying the instructions. Some teachers give different instructions to students with various levels of reading ability since they also need different learning strategies. Sibel, Ali, and Lin (2016, p. 771) stated that the issues in classroom management are related to the physical environment, planning, time management, social relationship management, and management behavior, which have connections with students, teachers, schools, classes, curriculum, program, and parents. Karen (2016) stated that multigrade schools in small villages have a complex, various, and intensive leadership. Additionally, the society life in small villages makes an unconventional leadership situation. Behera (2011, p. 179) revealed that the improvements of teaching quality in the context of a multigrade class with specific needs (selection of classroom, contents, specification of goals, classroom management, assignments that involve students, working groups, and evaluation questions), which are required by the teachers consist of class management, learning organization, teaching style, and the use of teaching materials.

In some cases, the challenges of multigrade classroom management can be overcome by adding the number of teachers, classrooms, teaching strategies, and parent participation. Glick and Sahn (2006, p. 118) reported an alternative policy for rural Madagascar among the factors of school quality, request for the improvement of facilities for the poor community, and the use of multigrade teaching, by adding the number of teachers and classrooms. Such policy would result in a simple improvement in school registration in general, and a proportional improvement for the children who come from low-income families. Huini (2013, p. 16) mentioned that as a teaching strategy for instruction classes and classroom management, the learning modes applied in multigrade classroom hold a major role since they could become the effective way to obtain educational benefits with lower cost. Venter, Joubert, and Chetty (2014, p. 1225) mentioned that parent participation in schools, community, and family partnership programs that are needed by rural multigrade classes to improve students' academic achievement at the end. The parents and teachers need to focus on the characteristics and challenges available in the environment of the multigrade classroom when developing the partnership program, which would gradually lead to practical strategy and contextual development, and become effective for the school.

The quality of multigrade teaching can be developed through educational management by optimizing the most supporting factors by a well-designed strategy. Condry and Blease (2014, p. 36) state that the contributing factors of a quality multigrade teaching include a low socio-economic background, transportation, non-literate parents and challenges faced by teachers comprise of the issue in reading, different learning needs, resources, teaching and learning language, and governmental support. The results of the research performed by Olivares and

Jiménez (2015, p. 58) in Spain, France, Portugal, Chile, and Uruguay in relation to learning method mastery and application in multigrade classrooms showed that there is a selection of pedagogical strategies depend on the variation of age and class, which also gives a consideration of classroom organization. Tomas and Santos (2015, p. 58) mentioned that in the implementation of multigrade classes in village schools, the management focuses on the complex variation of students based on age, gender, score, context, conceptual level, interest, and motivation. All of the students share the same room and teacher and are organized in the same period, in which they share a series of activities, either spontaneously and planned by the teachers. The management should focus on ensuring the student academic achievement.

Lastly, either in multigrade or single classes, the factor of educational quality determines students' learning success, which is measured annually either in the internal or external (compared with another school) context. Boix, Champollion, and Duarte (2015, p. 7) reported that the school location might externally influence the school educational quality as an affecting factor, but it can also become and have a full educational role. It also can entirely affect the educational quality, even give a systemic impact as can be seen in some rural and mountain areas.

5. Conclusion

Multigrade teaching is implemented due to the teacher shortage, and teacher distribution to optimally provide the quality educational service. It is aimed to maximize the use of the available resources with the limited number of teachers. It is expected to be able to allow a larger scale of educational and teaching service acquisition. The most critical stage in the process of multigrade teaching is the classroom implementation stage since it involves multi parties with various interests. The aspect of educational management in multigrade classrooms in Indonesia is purposed to practice the authority given to the local governments regarding teacher management with the considerations of teachers' working period, age, domicile, competency, qualification, and performance. Additionally, in order to achieve an efficient teacher management and to reduce its adverse effects, the number of learning groups in each school and the number of teacher working hours in a week need to be taken into considerations. A policy framework that is based on the regulations supporting the implementation, the policy of minimum standards of education, the relevant rules, teacher workload, and teacher certification is required to implement the educational management of multigrade classes.

The recommendation given based on this research is that multigrade teaching should become a rational choice to be applied in maritime countries like Indonesia, which comprise of many small islands and which are dominated by villages. Multigrade classes allow the government and communities to reduce the cost of education and improve students' independence through peer-learning. It could benefit the students more since they could acquire educational service from the same teacher in a longer time, and multigrade teaching also creates a more natural learning situation since the students could do learning activities which are based on their levels of ability, and it could develop the students' tolerance of others. The effectiveness of a multigrade teaching depends on the type of class management in order to implement the educational policy fairly to all students. Multigrade classes are regarded to provide a larger opportunity for children to receive education. Therefore, an implementation of educational technology is an effective way to manage the classrooms in order to ease the learning process and improve the performance of the multigrade classes. The learning dynamics in relation to the standard competencies of teachers reflecting the vision of the teacher training programs, which include the experimental

opportunities, working risks, and direct involvements in students' learning outcome, would support the development of teachers' professional attitude that conforms to their adaptive skill after they become teachers. The level of teacher welfare also becomes the main consideration in regrouping schools within one complex and teacher redistribution. Besides teachers' quality and well-being, and certain social, economic, and cultural conditions, the pedagogical methods of teachers act as contributing instruments for the success of the multigrade classrooms. The unique feature of a multigrade class requires a sufficient level of educational management accompanied with the resources that support the curriculum, teachers, students, facilities and infrastructures, financing, and school culture. In some cases, the challenges found in multigrade classroom management can be solved by adding the number of teachers and classrooms, varying teaching strategies, and through parent participation.

References

- Autio E. and Deussen T. (2016). *Recruiting Rural Schools for Education Research: Challenges and Strategies*, Springer International Publishing: Switzerland.
- Behera S. K. (2011). "Bring about improvement in multigrade teaching skills through guided practice", *My Research Journals*, Vol. 2, No. 1, pp. 179-204.
- Beihammer E. K. H. and Hascher T. (2015). "Multi-grade teaching practices in Austrian and Finnish primary schools", *International Journal of Educational Research*, Vol. 74, No. 1, pp. 104-113.
- Berry C. (2001). "Achievement effects of multigrade and monograde primary schools in the Turks and Caicos Islands", *International Journal of Educational Development*, Vol. 21, No. 6, pp. 537-552.
- Bogetic Z. and Chattopadhyay S. K. (1995). "Efficiency in Bulgaria's schools: A nonparametric study", World Bank Policy Research Working Paper No. 1422.
- Boix R., Champollion P. and Duarte A. M. (2015). "Territorial specificities of teaching and learning", *Journal of Education*, Vol. 3, No. 2, pp. 7-11.
- Condy J. and Blease B. (2014). "What challenges do foundation phase teachers experience when teaching writing in rural multigrade classes?", *South African Journal of Childhood Education*, Vol. 4, No. 2, pp. 36-56.
- Enayati T., Zamani F. and Movahedian M. (2016). "Classroom management strategies of multigrade schools with emphasis on the role of technology", *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, Vol. 7, No. 2, pp. 165-179.
- Glick P. and Sahn D. E. (2006). "The demand for primary schooling in Madagascar: Price, quality, and the choice between public and private providers", *Journal of Development Economics*, Vol. 79, No. 1, pp. 118-145.
- Hargreaves E., Montero C., Chau N., Sibli M. and Thanh T. (2001). "Multigrade teaching in Peru, Sri Lanka and Vietnam: An overview", *International Journal of Educational Development*, Vol. 21, No. 6, pp. 499-520.
- Huini H. (2013). "Development of multi-grade teaching mode in primary schools in rural areas of western China", *Journal of Jixi University*, Vol. 2, No. 1, pp. 16-24.
- Ilka G., Uwe S. and Larissa Z. (2016). "Denominational schools and returns to education — Gender socialization in multigrade classrooms?", in: *Demographischer Wandel - Session: Schooling and Labor Supply. No. A14-VI*.
- Karen S. (2016). "Small rural school leadership: Creating opportunity through collaboration", in: Clarke, Simon and O'Donoghue, Tom (Eds.), *School Leadership in Diverse Contexts*, Routledge, Abingdon, England.
- Kucita P., Kivunja C., Maxwell T. W. and Kuyini B. (2013). "Bhutanese stakeholders' perceptions about multi-grade teaching as a strategy for achieving quality universal primary education", *International Journal of Educational Development*, Vol. 33, No. 2, pp. 206-212.
- Kyne C. M. (2007). "The preparation of teachers for multigrade teaching", *Teaching and Teacher Education*, Vol. 23, No. 4, pp. 501-514.
- Lincoln Y. S. and Guba E. G. L. (2002). *Naturalistic Inquiry* (4th ed.), Beverly Hill, Ca: Sage Publication, Inc.
- Little A. W. (2001). "Multigrade teaching: Towards an international research and policy agenda", *International Journal of Educational Development*, Vol. 21, No. 6, pp. 481-497.
- Luschei T. F. and Chudgar A. (2017). *Teacher Distribution in Developing Countries*, Palgrave Macmillan US.

- Moeini S., Moradian N. and Khoroshi P. (2016). "Developing multi-grade classes using SWOT analysis", *Mediterranean Journal of Social Sciences*, Vol. 7, No. 4, pp. 197-202.
- Olivares P. A. and Jiménez A. B. (2015). "Teaching strategies and space organization in multigrade classrooms", *Journal of Education*, Vol. 3, No. 2, pp. 58-77.
- Petrus T. D. (2016). "The implementation of multigrade teaching in rural schools in the Keetmanshoop education region: leadership and management challenges", thesis, University of Namibia.
- Rosser A. J. and Fahmi M. (2016). "The political economy of teacher management in decentralized Indonesia", World Bank Policy Research Working Paper No. 7913.
- Sampson C. (2016). "One teacher's experiences of teaching reading in an urban multi-grade foundation phase class", *Perspectives in Education*, Vol. 34, No. 2, pp. 83-96.
- Sergio C. and Edgar E. R. D. L. C. (2017). "Controlling administrative discretion promotes social equity? Evidence from a natural experiment", *Public Administration Review*, Vol. 77, No. 1, pp. 80-89.
- Sibel A., Ali Y. and Lin G. A. (2016). "Classroom management through the eyes of elementary teachers in Turkey: A phenomenological study", *Educational Sciences: Theory and Practice*, Vol. 16, No. 3, pp. 771-797.
- Susen S. and Michael A. K. (2016). "Perceptions of differentiating pedagogy for gifted readers, typically developing readers, and students with reading difficulties in multi-grade primary classrooms", *Australasian Journal of Gifted Education*, Vol. 25, No. 2, pp. 52-69.
- Susen S. and Michael A. K. (2016). "Perceptions of differentiating pedagogy for gifted readers, typically developing readers, and students with reading difficulties in multi-grade primary classrooms", *Australasian Journal of Gifted Education*, Vol. 25, No. 2, pp. 52-69.
- Tomas R. B. and Santos L. (2015). "The issue of autonomy within multigrade classrooms", *Journal of Education*, Vol. 3, No. 2, pp. 58-77.
- Venter N. V. L., Joubert J. and Chetty R. (2014). "Characteristics of a school, community and family partnership to increase parental involvement in learning at rural multigrade schools", *South African Journal of Childhood Education*, Vol. 5, No. 23, pp. 1225-1234.
- Wilkinson I. A. G. and Hamilton R. J. (2003). "Learning to read in composite (multigrade) classes in New Zealand: Teachers make the difference", *Teaching and Teacher Education*, Vol. 19, No. 2, pp. 221-235.
- Hernawan A. H. and Cynthia R. (2011). *Pengertian, Dimensi, Fungsi, Dan Peranan Kurikulum*, Jakarta: Rajawali Press.
- Duflo E., Dupas P. and Kremer M. (2015). "School governance, teacher incentives, and Pupilâ teacher ratios: Experimental evidence from Kenyan primary schools", *Journal of Public Economics*, Vol. 123, No. 11, pp. 92-110.
- Anthony G., Hunter J. and Hunter R. (2015). "Prospective teachers development of adaptive expertise", *Teaching and Teacher Education*, Vol. 49, No. 7, pp. 108-117.
- Liao W. and Yuan R. (2017). "Understand an emerging 'failure' of an equality-oriented teacher policy in China: A job search perspective", *International Journal of Educational Research*, Vol. 81, No. 10, pp. 71-82.
- Luschei T. F. and Chudgar A. (2017). *Teacher Distribution in Developing Countries Teachers of Marginalized Students in India, Mexico, and Tanzania*, Palgrave Macmillan: US.