The Positive Effects of Infrastructure Management in Fine Art Learning (A Literature Study on School Management)

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Abstract: School management is an attempt to managing potential resources existing in school and conducted systematically to achieve the objective of education. School management in either formal or nonformal education institution is important to the quality of fine art learning. The objective of the research was to find out the effect of school management in fine art learning. The focus of the research was on identifying the effect of school management in fine art learning. The research method employed was a literature study with data sources including books, regulations, report results, articles of magazine, a result of research and article of a journal. The result of the study on some literature sources showed that the existence of complete and well-managed infrastructure could exert a positive effect on the fine art learning process viewed from cognitive, psychomotor, and affective domains.

***Keywords**: management, infrastructure, art learning*

Introduction

School management is a very important and vital action in organizing education and teaching in formal and non-formal schools. Educational organizations constitute a specific group of work organizations. Their integrating elements include their mission, the attainment of educational goals and the development of learning (Průcha, 2015).

An education institution's success level is viewed from the achievement obtained through good school management ability. The challenge faced in education institutions is to pursue the fact of having fallen behind, meaning the competition in gaining achievement, moreover in dealing with global competition.

Erdogan, et al (2010: 888-889) mentioned in their research about classroom management. The solutions were suggested: improvement in teachers qualification, regulation at place and structure of the course in the curriculum, organizing motivational activities, reorganizing classroom/lab sitting plan, giving punishment, ignoring misbehavior, understanding reasons behind problems, meeting with parents and providing coordination among different subject communities in schools.

To implement good management, a school is required to keep learning and collecting information sources on art education, and improving the quality of education through exploring creative ideas to make reform in line with ever changing time development. In line with Mulyasa (2011: 12), to meet such an interest, a variety of learning source is needed by teacher and headmaster in developing an effective, efficient, independent, productive, and accountable school. According to Armstrong and Taylor (2015, p. 43), human resource management is "a managerial approach to using people's efforts, abilities and dedication to perform required work in a manner ensuring good prospects for an organization"

In implementing infrastructure management, effective infrastructure management (development of school-based infrastructure management structures, policies, and plans for maintenance and renovations of the school's physical facilities) is important for school improvement (Ramodikoe, 2013:9).

Teacher's role in learning is vital. As explained by Mikael & Asa (2019:42) an excellent teacher is that they: (1) Focus on what is important in the teaching session; (2) Adapt their

teaching to the prevailing situation; (3) Create a good environment for learning; (4) Engage on an emotional level with their work and their students. All of these criteria must be optimally applicable to the management of learning facilities and infrastructure.

The success of both formal and non-formal education institution, according to Baharuddin & Wahyuni (2010:55), is inseparable from the points of education management including (1) curriculum management, (2) personnel management, (3) student management, (4) infrastructure management, (5) financial management, (6) administrative management, (7) public relation management, and (8) special service management.

The objective of the research was to find out the effect of management on the school's infrastructure in the art learning process. Infrastructure management in the fine art area is the most important point in the learning process because basically the basis of art learning is a practical activity. Education infrastructure management can be defined as a cooperating process in exploiting all education infrastructures effectively and efficiently (Bafadal, 2008: 2).

Overall, there is no difference in the management process conducted for education infrastructure between formal and non-formal institutions. The enactment of local autonomy by the government informal education institution reinforces its similarity to non-formal education. The school has a big authority of managing the institution it carries on and in addition the role of school citizens and the public improves an institution's quality.

The important need for the availability of infrastructure in art learning is based on administrative needs and practical need for fine art learning. Administrative need includes office, room, equipment, school inventory, computer, paper, etc. Meanwhile, the need for learning practice tends to the students' right during the fine art learning process, such as drawing paper, canvas, brush, paint, and other fine art equipment.

The availability and the preparedness of infrastructure management in school can affect the fine art learning process. The effect of infrastructure management on students in fine art learning can be divided into cognitive, psychomotor, and affective domains.

Considering the explanation above, the presence of infrastructure affects the fine art learning process in formal and non-formal schools. This article will identify various findings of previous studies on the positive and negative effects of infrastructure management and its relevance to the fine art learning process.

Methods

The method employed in this research was a literature study with data source including books, research findings, and journal articles. This study includes various research results on the management of infrastructure in schools, including 4 national journals, 6 international journals, and 1 thesis research result. The result of the literature study would be used to identify the effect of school infrastructure management on art learning. Data of research included the finding of research on school infrastructure management and art learning in an educational institution.

Results and Discussion

Infrastructure Management

School infrastructure is a source of strength in the school's successful vision and mission. To achieve the objective of the research, and infrastructure management pattern is required to govern and to manage it (Kristiawan, 2017: 10). The objective of learning infrastructure management is to achieve the learning target through the presence of infrastructure utilized as the medium by

which the learning process runs effectively and efficiently. It is in line with Bafadal (2008) stating that the objective of learning infrastructure management is to seek the school infrastructure need through planning, usage, and maintenance corresponding to the need analysis and considering the efficiency of funds required.

The infrastructure management process, according to *Permendikbud* (Minister of Education and Culture's Regulation) No.27 of 2015, includes (1) planning consisting of inventorying, institution needs analysis, need type identification, fund availability; (2) procurement consisting of purchasing, development, cooperation with other parties; (3) development consisting of addition and new construction; (4) maintenance consisting of storing and periodical treatment; (5) removal consisting of the removal of object/asset, by means of granting, selling, or annihilating it, and including it into document; (6) the use of infrastructure governed corresponding to SOP (Standard Operating Procedure).

Nurbaiti (2015) in her study included: (1) planning; (2) procurement consisting of drooping from government, buying, contribution, own made; (3) inventorying (recording); (4) distribution consisting of direct and indirect distribution; (5) maintenance consisting of periodical and incidental maintenance; (6) removal; (7) supervision and accountability.

Nasrudin and Maryadi (2018) in their study found the procedure of infrastructure management in the school including: (1) the education infrastructure planning in learning process through need analysis, financing, and priority analysis; (2) infrastructure procurement in the learning process originates from repairing, governmental fund, community's contribution, goods borrowing; and by considering quality and function in the learning process; (3) infrastructure inventorying in the learning process including recording the code, number, and price of product (object) aiming to control the school infrastructure; (4) infrastructure maintenance in the learning process through daily maintenance involving teachers and students with textbook, classroom, and learning instrument being the target; and periodical maintenance involving school building maintenance; (5) the removal of infrastructure in the learning process has been conducted well through removal procedure and considering the educators' workload.

Considering the findings of previous studies aforementioned, it can be concluded that the main procedure of managing school infrastructure, particularly in fine art learning, includes planning, procurement, inventorying, development, distribution, maintenance, usage, removal, supervision, and accountability.

The Infrastructure of Fine Art Learning

Infrastructure, according to the National Education Department as governed in the Minister of Education and Culture's Regulation Number 24 of 2007 about Standard Infrastructure of School, consists of:

Table 1. Standard Infrastructure of School

No.	Infrastructure	Facilities
1.	Land - Status of land ownership - Adequate land	Facilities in the learning room - Theoretical learning facilities - Theoretical teaching material - Media
2.	Structure and Building	Facilities in Practice Room - Visual aids - Supporting tools - Practical Teaching Material
3.	Learning Room - Theory Room	Facilities in Supporting Room - Table

No.	Infrastructure	Facilities
	- Practice Room	- Chair - Cupboard - Stationeries
4.	Supporting Room - Leader Room - Instructor Room -Reading room, toilet, warehouse, parking lot, praying area	ICT sets of Equipment - Computer - Network System - Internet

Considering the table above, facilities are categorized into 4 points: facilities in the theoretical learning room, in the practice room, in supporting room, and the availability of communication technology to support the learning process.

Meanwhile, the infrastructure of fine art learning, based on the learning need analysis, emphasizes more on the procurement of practical room and laboratory. The need for practical room and laboratory includes painting, sculpturing, textile, wood, metal, ceramic, and visual communication design laboratories. It is in line with the Minister of Education and Culture's Regulation No. 61 of 2014 about the availability of art infrastructure at school stating that "….infrastructure element like land, building/structure, sport and art facilities, and other facilities are highly needed to support and to facilitate the learning implementation".

The availability of facilities and infrastructure can be a solution to a variety of learning problems in the art. Case study in Vivoda (2019:13), A tactile picture book gives impacting the perception of the role of education, especially art education, the book proved to be the perfect tool to open dialogue between various education fields - arts and special education, on the one hand, and the real problem "invisible" the community of children who are blind and visually impaired on the other hand.

Previous studies Relevant to Infrastructure Management

A previous study related to the management of school infrastructure in the learning process (Giyanto, 2011) explained that the management of infrastructure involves: 1) providing infrastructure and facilities compatible to the learning need and supporting the school's vision and mission; 2) treatment conducted routinely to save budget, and consciousness that treatment is the responsibility of all citizens; 3) the utilization of infrastructure supporting teaching-learning activity, and the utilization of ICT can grow to learn enjoyment and motivation among students; 4) inventorying conducted by school by means of electronic and manual recording.

Nurbaiti (2015) also explained that the management of infrastructure passes through the following procedure: 1) planning and providing facilities and infrastructure conducted by headmaster as specified; 2) school infrastructure inventorying has been conducted well; 3) distribution is conducted either directly or indirectly; 4) school infrastructure maintenance is conducted periodically and incidentally so that the infrastructure is usable in long term; 5) supervision and accountability (reporting) concerning school infrastructure is undertaken by headmaster.

The application of infrastructure management can affect positively the creation of high-quality learning process. Winarno & Mundilarno (2018) in their study explained that the utilization of infrastructure affects positively the performance of the teacher in the learning process. This study took 172 teachers as the sample from 343 teachers being the populations in Vocational High Schools in Yogyakarta.

The availability of adequate learning facilities results from good infrastructure management. The learning tools supporting the learning process can stimulate the students' motivation to create artwork. It is confirmed by Yona et al (2011) finding that the improvement of students' active participation in the learning process as seen from such indicators as desire, attention, and participation after the use of audiovisual media indicates their improved motivation to learn art and culture. To improve the students' independence in art and culture learning, a method or media compatible wih the material delivered should be used.

Baba & Odiba (2015) explained in their research (1) lack of ICT professional, resources, infrastructure and management support affects effective teaching and learning and research development in Nigerian schools, (2) common challenges include but not limited to poor funding, lack of infrastructure, lack of technical support and lack of professional development in ICT use and integration into curriculum. Based on these results, a teacher must be professional in all teaching and learning activities

Maltha & Eko (2018) in their study explained the relationship between improved learning motivation due to the complete learning facilities and the learning outcome of students in the Fine Art education study program. This study found that: 1) learning motivation affects the learning outcome; 31.8% of learning outcome variation is explained by the learning motivation as the factor making the learning outcome increasing or decreasing in the student of fine art education study program; 2) when the education facilities are used maximally, the development of learning outcome will change positively.

Miranda & Echeverry (2010) explained in their study, the availability of additional infrastructure resources can increase the successful implementation of education policies in Colombia. Two elements must be balanced, namely between infrastructure and resources. Where both must be sustainable to create a good education.

Regina, et al (2012) presents on their research, virtualization technologies and outlines the advantages that the virtual technologies provide for the education process. the availability of modern technology facilities in schools helps students to learn and improve achievement.

The presence of infrastructure supporting art learning in school is characterized by the existence of art room or art laboratory. Jeffrey (2013) in his study explained that the presence of the art room in a school education institution related to the development of school infrastructure can create a new circumstance. The finding presented is the function of art room related to art learning including 1) as the place or the vehicle to create work safely; 2) social contact; 3) symbolic identification; 4) task set; 5) the manifestation of school growth. The function of the art room is to provide the art learning conduciveness in school and to be the art teacher's means of avoiding isolation between subject teachers.

The use of facilities and infrastructure in fine art learning should also consider the art management aspect. Enamhe (2014) found the importance of art management in art learning. Art management gives managerial knowledge on art concerning how to estimate cost, to make the decision, to preserve, to promote, and to store the work, including intellectual right and copyright protecting the art, artist, and art organization. The learning of the art management is intended to introduce the students with art management related to art development program.

The development of learning facilities and infrastructure has entered into the modern era today, in which the presence of modern technology-based facilities is desirable in the fine art learning process. Yali (2014) suggested the importance of creating virtual archive tools to meet the demand for modern tool development in the management process in art high education, and to provide some tool functions maximally, thereby providing more beneficial service for reform teaching, education management, social service, and scientific work in art high education. The creation of

modern technology-based tools related to the fulfillment of learning infrastructure can improve the learning efficiency corresponding to the management of art learning.

The Positive effect of Infrastructure Management on Fine Art Learning

Considering the findings of previous studies conducted by other authors related to the management of infrastructure in art learning, a conclusion can be drawn concerning the effect of infrastructure management on fine art learning. Such the effect is viewed from cognitive, psychomotor, and affective domains according to Bloom's taxonomy.

Cognitive domain includes 1) the improvement of art learning outcome due to the improved learning interest of students resulting from the use of facilities and infrastructures (Maltha & Eko: 2018; Regina, et al: 2012); 2) the improvement of students' insight through art learning experience directly (in Yona, et al; 2013); 3) Students absorb the material of fine art learning more easily (Giyanto, 2011; Maltha & Eko, 2018; Enamhe, 2014; Jeffrey, 2013).

Psychomotor domain includes 1) the existence of adequate facilities and infrastructure can result in learning experience in sharpening the skill (Jeffrey, 2013); 2) the fulfillment of technology-based learning facilities grows the students' working skill (in Yona et al.: 2013; Yali: 2014; Regina, et al: 2012); 3) the availability of appropriate practical material timely can accelerate the practical learning (Yali, 2014; Jeffrey, 2013).

Affective domain includes: 1) growing the enjoyment in implementing the learning (Giyanto, 2011; Nurbaiti, 2015); 2) improving the students' learning motivation (in Maltha & Eko, 2018; Yona, et al., (2013), Giyanto, 2011); 3) growing care about the maintenance and the treatment of art facilities and infrastructures (Enamhe, 2014; Jeffrey, 2013), Giyanto, 2011; Nurbaiti, 2015); 4) developing responsible character in the students (Giyanto, 2011; Nurbaiti, 2015; Enamhe, 2014; Jeffrey, 2013), 5) improving social contact between students and educators (Jeffrey, 2013); 6) the students can appreciate artwork (Enamhe: 2014).

Meanwhile, other effects resulting from the good management of facilities and infrastructures are 1) Increase school resources (in Miranda & Echeverry (2010), Baba & Odiba (2015); 2) Improve teacher quality (Baba & Odiba (2015); 3) Art teacher has more moving media or space improving the art learning achievement better (Winarno & Mundilarno: 2018); 4) the presence of art room as a media for art teacher to avoid the isolation between subject teachers (Jeffrey, 2013); 5) more conducive and quality fine art learning (Yona, et al.; 2013); and 6) the manifestation of school growth (Jeffrey, 2013).

Conclusion

From the result of previous studies, it can be concluded the positive effect of good infrastructure management on fine art learning. Good infrastructure management can improve the quality of schools from all aspects, therefore schools must pay attention to facilities and infrastructure as a solution to improving the quality of learning, especially fine arts. Various positive impacts of the management of infrastructure include Enamhe (2014), Jeffrey (2013), Giyanto (2011), Nurbaiti (2015), Yona, et al. (2013), Winarno & Mundilarno (2018), Maltha & Eko (2018), Yali (2014), Baba & Odiba (2015), Regina, et al (2012), Miranda & Echeverry (2010):

Cognitive

- The improvement of art learning outcome due to the students' improved learning interest resulting for the use of infrastructure

- Improving the students' insight
- Students absorb the material of fine art learning more easily

Psychomotor

- Giving learning experience in sharpening the skill
- Growing modern technology skill of students in creating work
- Accelerating the practical learning

Affective

- Growing enjoyment
- Improving student' learning motivation
- Growing care about maintenance and treatment of fine art infrastructure
- Creating a responsible character
- Improving social contact between students and educator
- Students can appreciate theartwork

Other effects

- Increase school resources
- Improve teacher quality
- Art teacher has more moving media or space in improving the achievement of the art learning
- Serving as a media for the art teacher to avoid the isolation between subject teachers
- More conducive and quality fine art learning
- The manifestation of school growth

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