

School-Related Factors Predicting the Effectiveness in Managing Educational Facilities: A Proposed Model

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ABSTRACT

This is a descriptive-correlational study on the competency of implementers and the effectiveness of educational facilities management in the District of Pandan, Antique. It also looks on the extent of adequacy of educational facilities. Using a survey method, 64 respondents composed of property custodians and school heads representing 32 public elementary schools assessed the extent of adequacy of school facilities, the level of competency of implementers and the level of effective of schools' educational facilities management. The findings revealed the following: educational facilities in Pandan mostly below standards; implementers were competent; schools' facilities management were effective. There was a correlation between competency and effectiveness in educational facilities management. Challenges experienced in relation to educational facilities were varied ranging from insufficient funds, poor facility quality, among others. An inclusive model of facilities management which tends to address concerns on facilities management revealed by this study and to improve the district on this matter is made.

KEYWORDS: *educational facilities, property custodian, adequacy, competency, effectiveness, management*

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1. INTRODUCTION

The Philippine government today, in its desire to provide quality and free public elementary and secondary education, implemented policies and programs to respond to this matter. And as time goes by, these policies, and programs together with systems, practices and values in the educational sector have seen better days. Thus, the need to update or introduce new measures to keep abreast with the challenges and needs of times is an utmost concern of school administrators.

One of the concerns that the educational system needs to address is how to effectively manage educational facilities. The student population grows, the need for more facilities becomes a perennial concern for the government through the Department of Education. This concern is heavily felt by the people of the said agency at the local level. As the primary function of educational facilities is to provide the proper school environment that is most conducive to effective teaching and learning, people in charge should see to it that facilities are responsive to changes in teaching methods and school organization taking into consideration the changes in the educational process which have become more active, interrelated and has become an integral part of the wider community. It is aimed by the agency that functional and effective educational facilities are developed, operated and managed on the basis of a comprehensive plan of action of the school, prepared by stakeholders in education in the community (Educational Facilities Manual, 2010).

This study is about the competencies of implementers and the effectiveness of schools in managing educational facilities including challenges in the Department of Education (DepEd), District of Pandan, Antique. It also includes the strategies done to address them.

The usual practice in the Department of Education is that programs and projects would always come from the higher echelons and to be implemented at the grassroots level. Given that situations and contexts differ in many local levels, concerns and issues in the implementation of programs and projects arise differently. This holds true, especially in educational facilities. Concerns such as lack of educational facilities, sub-standard equipment, lack of funds, among others beset the public educational system. And the administrators and personnel and students at the grassroots level directly bear the brunt of these concerns. Though there are studies having a national level scope on concerns and issues on educational facilities in general, no study has been conducted at the grassroots level especially in Northern Antique. Knowing if educational facilities are effectively managed at the local level would provide our understanding of the quality of public education at the grassroots.

Another thing worth considering in evaluating the management of educational facilities is how systems and guidelines from the top-level are implemented at the grassroots level and how are they sustained. Concerns on low quality and unsustainable educational facilities warrant immediate attention and solution. But this can only be addressed by having a better understanding of the situation.

To address the above-mentioned situation and to know the state of educational facilities in the public school and how are they managed, the perceptions and inputs of the stakeholders can be sought. Basing from the Educational Facilities Manual of 2010 of the Department of Education (DepEd), the following aspects will be covered: Management and Administrative Control; Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools; Proper Utilization of Educational Facilities in School; Property Responsibility; Basic Education Information System (BEIS); Financing Educational Facilities; Procurement of Infrastructure Projects, Goods, and Services; Accounting and Recording of School Property; and Disposal of Educational Facilities.

This study is expected to provide an evaluation of the state of educational facilities at the grassroots level, in this case, the

public elementary schools in the District of Pandan of the Department of Education. It is also expected that concerns and issues regarding educational facilities will be surfaced and the corresponding strategies and practices are done to address them. In general, the study will provide an overall evaluation of the effectiveness of educational facilities management from the perspective of stakeholders.

The researcher, being appointed as a property custodian of one of the schools in Pandan has prior knowledge on the system and guidelines that govern the management and utilization of educational facilities. With his knowledge and background on the topic, a better understanding of how effectively educational facilities are managed in Pandan could emerge through this study.

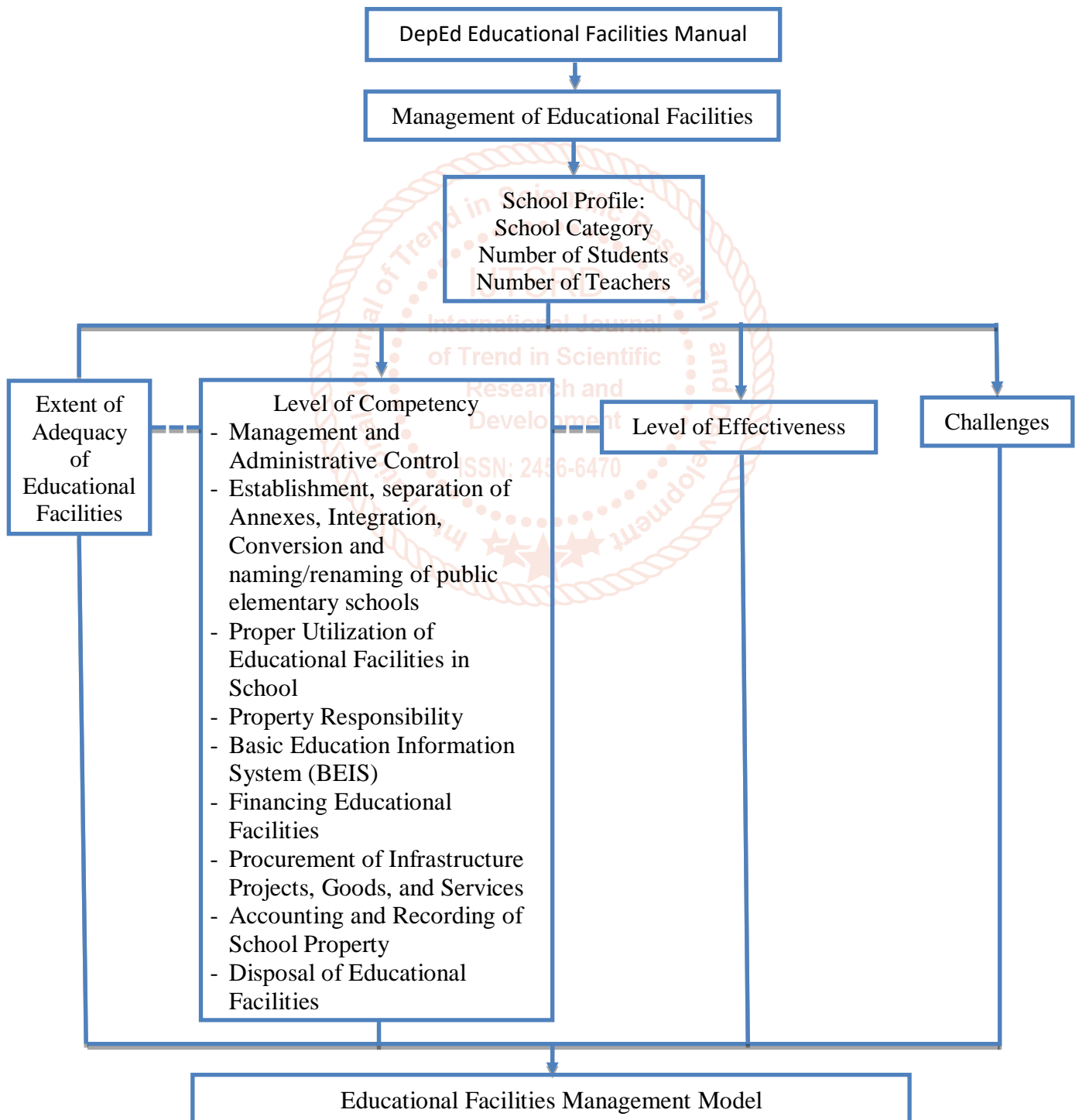


Figure 1 Schematic Diagram of Conceptual Framework

Conceptual Framework

This study was anchored in the Educational Facilities Manual (Revised edition of the 2007 Handbook on Educational Facilities - Integrating Disaster Risk Reduction in School Construction).

Educational facilities are not just tangible resources of schools that teachers and learners utilize but are markers and indicators of the state of education. Managing educational facilities is ensuring the functionality, comfort, safety, and efficiency of the built environment of schools. It has a profound impact on instruction and learning.

Managing educational facilities is one of the key functions of school administrators and the main function of property custodians. Being at the grassroots of Philippine public education, administrators and custodians play crucial roles in steering the school in the right direction where the management of educational facilities is one of the crucial factors.

Understanding the management of educational facilities in the Department of Education, District of Pandan, Antique can be started by knowing the profile of schools specifically the school category, number of students and number of teachers. These things might have bearing on the effective management of facilities in the schools in the said district e.g. the number of a certain facility does not match the number of students.

As educational facilities influence the state of learning of pupils, the adequacy of facilities may impede or foster learning. The extent of the adequacy of educational facilities can be affected by the level of effectiveness of the management of educational facilities by, and the level of competency of, administrators and property custodians.

Competency, is the skill or ability in a specific field or subject, or being able to do something well (Your Dictionary, 2018), is required of managers of educational facilities. In the case of managing educational facilities in this study, competency refers to the skills and abilities of administrators (principals and head teachers) and property custodians of elementary schools of DepEd Pandan District in ensuring the overall functionality of the built environment in their respective schools.

Effectiveness, being the degree to which something is successful in producing the desired result (Oxford dictionary, 2019), can indicate a person's competency. It could be possible that the effectiveness of managing educational facilities is correlated with the level of competency of administrators and property custodians. The levels of competency and effectiveness are based on the following variables.

Management and Administrative Control over an elementary school are exercised by the school head. School heads create a school atmosphere that is encouraging to teaching and learning. Under this, they also administer the physical and fiscal resources of the school and oversees the maintenance of the educational facilities of the school plant.

DepEd Order No. 71, s. 2013 presented the guidelines on the Establishment, Separation of Annexes, Integration,

Conversion, and Naming/Renaming of Public Elementary Schools.

Proper Utilization of Educational Facilities in School. The use of school grounds and facilities of the school other than the school activities must be subject to the approval of the higher authority. Any illegal act or activity resulting from or related to the utilization of the school property or facilities shall be the accountability of the school head.

Property Responsibility. All educational facilities procured/purchased by the Department of Education donated by LGU's or NGO's and private individuals shall be considered the property of the recipient school. The manner of responsibility is through all channels.

Basic Education Information System (BEIS) was developed to process and generate data needed for planning, budget preparation, resource allocation and performance indicators.

Financing Educational Facilities is a constitutional mandate which provides that the Government should establish an adequate system of public education. National, provincial and municipal governments are the sources of funds. Cooperation between the schools and the public were maintained and a sound effective public and relations programs shall be organized and kept functioning by schools.

Procurement of Infrastructure Projects, Goods and Services. Republic Act No. 9184 otherwise known as the "Government Procurement Reform Act" requires that all procurement must adopt this law in the procurement of infrastructure, goods, and services. Transparency in the procurement shall be done through competitive bidding except provided in the implementing rules and regulations.

Accounting and Recording of School Property. All records pertaining to accounting and inventory of school properties shall be maintained and updated by the school heads. The basic policies and procedures, accounting and recording of educational facilities shall be in accordance with New Government Accounting System.

Disposal of Educational Facilities. Despite the proliferation of various laws, implementing rules and regulations administering the disposal of property, a considerable quantity of unserviceable and no longer needed are still present in schools. Furthermore, obsolete, forfeited/seized, supplies, materials and equipment and valueless records still exist in our schools. Thus, there is a need to for disposal to save the cost maintaining it.

Managing educational facilities is beset by challenges that affect instruction and learning situations in schools. By looking into the challenges encountered in educational facilities management in Pandan District, a bigger picture of the situation can be produced which could give us a better understanding of how things work in the area.

Once the extent of the adequacy of the facilities, levels of effectiveness and competency of the variables, and the challenges are identified, fitting educational facilities management model can be proposed. This model can serve as a prototype for the stakeholders in order to address

concerns involving the maintenance and usage of these educational facilities in the schools in the District of Pandan, Antique.

Statement of Purpose

The study aimed to assess which school-related factors predict the effectiveness in managing educational facilities among school heads and property custodians in elementary schools in the District of Pandan, Antique for the school year 2018-2019 as basis for proposed model:

Specifically, this study answered the following questions:

1. What is the extent of adequacy of the educational facilities in terms of:
 - 1.1. school location and site;
 - 1.2. administrative facilities and services facilities;
 - 1.3. teacher's workroom;
 - 1.4. counselor's office;
 - 1.5. library, media and technology centers;
 - 1.6. computer laboratory;
 - 1.7. kindergarten classrooms;
 - 1.8. grade 1-6 classrooms;
 - 1.9. health service units;
 - 1.10. stage facilities; and
 - 1.11. segregated toilets?
2. What is the level of competency of the implementers in managing educational facilities as to:
 - 2.1. Management and administrative control;
 - 2.2. Establishment, separation of annexes, integration, conversion and naming/renaming of public elementary schools;
 - 2.3. Proper utilization of educational facilities in school;
 - 2.4. Property responsibility;
 - 2.5. Basic education information system (BEIS);
 - 2.6. Financing educational facilities;
 - 2.7. Procurement of infrastructure projects, goods, and services;
 - 2.8. Accounting and recording of school property; and
 - 2.9. Disposal of educational facilities?
3. What is the level of effectiveness in managing educational facilities among different school's category?
4. Which school-related factors predict the level of effectiveness in managing educational facilities?
5. What are the challenges experienced by the implementers in managing educational facilities?
6. Based on the findings, what educational facilities management model can be proposed?

Significance of the Study

Results of the study are deemed important to the following:

Learners: Being one of the stakeholders will be guided by the results of this study on how to contribute to maintaining their educational facilities in good shape.

School Property Coordinators: Being the personnel directly managing educational properties, school property coordinators can use the results of this study as a guide and reference to further improve the management of educational properties.

Teachers: As facilitators of learning, the teachers, with data provided in this study as a basis, will be able to contribute their own share of in the effective management of educational facilities in their school which can translate to effective learning facilitation.

School Heads: Using data in this study, the school heads as supervisors/managers at the local level, be able to implement initiatives that directly address concerns on educational facilities management in their respective schools.

Policy Makers: As the body that creates strategies and proposed actions, this study will guide them on what are the efficient ways of providing a more fitting model to ensure the learning of students with effective school facilities and proper management from its stakeholders.

Department of Education Officials: Being on top of the echelon of powers in the agency, the result of this study could be a basis for them in addressing gaps, providing necessary measures to address arising concerns, and crafting strategies for successful management of educational facilities.

Community: The results of this study including the recommendations could be a basis for the community's response on how to contribute to the school to ensure quality education

The Researcher: This study is of utmost significance to the researcher as he is an appointed school property custodian; thus, the results discussed here will help him strategize on how to effectively manage educational facilities in their school. The researcher upholds moral accountability to maximize the resources available for the success of this study to be able to contribute to the field he is serving. This study will also be his contribution to the pool of knowledge on educational facilities management.

Future Researchers: This study could serve as a basis and reference for related studies in the future. The topic could be expounded in other areas not covered by this study.

Definition of Terms

The following key terms used in this study are defined operationally for understanding and clarity:

Educational Facilities refers to all the physical properties of a school, consisting of the grounds, buildings, and various facilities within the school grounds and inside the school buildings (Education Facilities Manual, 2010).

Management and Administrative Control refers to the management and administrative roles of Regional/Division Physical Facilities Coordinator, Physical Facilities and Schools Engineering Division, Regional Director, Schools Division Superintendent, District Supervisor, Principal/School Head.

Establishment, Separation of Annexes, Integration, Conversion and naming or renaming of public elementary schools refers to the systems and procedures including the criteria therein shall be used as guide by stakeholders to ensure that schools to be established, merged, converted, and named or renamed and the school

annexes separated from their mother schools are in accordance with DepEd quality standards to enhance the delivery of basic education.

Proper Utilization of Educational Facilities in School refers to the specific provisions on the proper use of the ground and facilities of the school.

Illegal utilization of educational facilities in schools refers to the failure or misconduct of persons or organizations to properly use the facilities available in educational institutions. These actions committed on this is punishable by the rule of law in the country.

Property Responsibility refers to regular maintenance and emergency repairs of facilities inside the school property. This also includes seeking preventive measures to make sure that the materials remain at their top performance every time they are used inside the facility.

Basic Education Information System (BEIS) refers to the management information system that is used by the Department of Education in the Philippines. This system is responsible for processing and generating data needed for planning, budget preparation, resource allocation, and performance indicators. It holds data on school enrollment, staffing, and facilities.

Financing Educational Facilities refers to the sources of funds for educational facilities in public schools.

Procurement of Infrastructure Projects, Goods, and Services refers to the allocation of finances for the establishment, improvement, and/or maintenance of the projects, goods, and services available in the educational institutions.

Accounting and Recording of School Property refer to the bookkeeping of financial accounts spent on the infrastructure and maintenance of facilities in educational institutions.

Disposal of Educational Facilities refers to the proper disposal of educational facilities as governed by pertinent Executive Orders and Memorandum Circulars.

School Profile refers to the required document from each academic institution that contains the school's information such as the school category, number of students, and number of teachers.

School Category refers to the distinction of the school, type of management, and curriculum the school follows. In the Philippines, the most popular categories for primary education are private schools, public schools, and parochial schools.

School Type refers to the classification of schools and the programs they follow. This term can be defined closely to School Category.

Summary of School Performance refers to an account of the extent of what an academic institution has achieved over the period of their educational goals.

Number of Students refers to the number of students enrolled in an academic institution in a school year.

Number of Teachers refers to the number of teachers employed in an academic institution in a school year.

The Extent of Adequacy refers to an academic institution's maximum state of sufficiency in providing a holistic development for its students and compensation and benefits for its teachers and benefactors.

Level of Competency refers to the capacity of an academic institution to efficiently do its tasks and mandate. The level of a school's performance may be determined by the identification, evaluation and development of its various activities and functions.

Factors refer to the elements or influences that can contribute to an outcome of a happening.

Challenges refer to the issues or situations that are regarded as unforeseen or unsolicited and needing to be dealt with.

Educational Facilities Management Model refers to the prototype followed to come up with a structure and process for the control, administration, and safekeeping of educational facilities.

2. REVIEW OF RELATED LITERATURE AND STUDIES

The chapter is divided into three parts that cover the information needed for the development of the study: Educational Facilities Management, Public Education and the State, and Public Facilities. The related literature presented here were both from international and local studies. Examples from the Philippine that apply to western contexts are listed to be able to effectively relate to the studies that are from this literature.

Educational Facilities Management

Facilities Management has been recognized as a profession in developed countries as was "defined within US and Canadian corporations" (Lavy 2008). Facilities Management has a definition of its own. The International Facility Management Association – IFMA (2006) defined Facilities Management as "a profession that encompasses multiple disciplines to confirm practically of the built environment by intergrading people, place, process, and technology" (Lavy 2008).

The importance of facility management in the education sector is usually neglected that McGowen (2007) remarked that school administrators having many tasks to execute in a school year are focusing on curriculum development but not giving enough attention for the assessment of their school facilities. While facilities management is a need, however in the context of the Philippines, it was noted that in terms of educational facilities, we lack these facilities which add to other problems like low teachers' salaries (Musa and Ziatdinov 2012).

Managing educational facilities is one of the key functions of school administrators. Lunen berg (2010) highlighted the need for administrators to embrace this responsibility as

they gain superior power and are held more answerable. Concerns in infrastructures such as aging school buildings which hindered learning can lead to school infrastructure costs escalation. In his discussion on school infrastructure cost and financing construction, Lunen berg said:

“Building a new school is no simple task. The rules are complex, the stakes are high, and the considerations are political. Try these questions, for example: How many students will the school accommodate? Where will the building site be located? How will attendance boundaries be drawn? Have environmental concerns been fully addressed? How will the cost be funded? How will voters react? Which companies will get the contracts? How many minority contractors will be hired? The list of questions, with the potential for vague answers, is endless (Little & Rhodes, 2010). Is it possible for one school serving the same number of students to be three or four times more expensive than another? You bet. Consider different building requirements (local construction codes, insulation factors, space requirements), building designs (open-air or enclosed, horizontal or vertical), land prices, professional fees, labor, and material expenses.”

He added it will be more costly to build schools in the future due to sophisticated components and materials, complexities in design and the varied functions. And that the rectangular design of classrooms will be replaced by flexible ones.

Earthman (2013) provides educational administrators a systematic approach to the processes of planning for school buildings where he presents detailed discussion from initial demographic work of expressing a need for facilities to the evaluation of the final product. He emphasized the inextricable link between facility planning and long-range educational planning in the school system.

Kowalski (2002) stated that four factors affected the adequacy of educational facilities such as infrastructure for public education in the United States. These are student population growth, increasing diversity in student population, school restructuring and technology, and antiquated structures. The growing population of a student body is also a manifestation of a need for more adequate facilities inside the academic institution.

There are works of literature that discussed the appropriateness of specific space and design to pedagogy and learning. In their study on science laboratories under the framework of Portuguese Secondary Schools Modernisation Programme, Veloso and Marquez (2017) found out that teachers found science laboratories the most controversial and debated of all the renovated learning spaces. Seeing that the science laboratory layout was envisioned to be common across all schools, there was little involvement by the engineers responsible for the repair of the schools. Aside from school architecture, in the context of developing countries, another provision that shows improvement of students' learning is the establishment of electricity and school libraries (Hanushek 1995). Being able to have well-maintained classrooms, appropriate classroom furniture, tap water and toilet also correspond to efficient education outcomes (Figuroa et al., 2016). In another study by Figuroa et al in 2015, the Department of Education in the Philippines requires one toilet for every 50 females and one

toilet for every 100 males. This standard, however, varies for each country but the international standard is 25:1 for females and 30:1 for males. This shows the poor conditions of educational institutions here in the country.

The role of a private individual, corporations, and foundations that supports public education through donations are also the topic of available literature. These private partners have a role in influencing effective management of educational facilities leading to a significant impact on students' performance. The project School Rehabilitation Program (SRP) of Ramon Aboitiz Foundation Incorporated (RAFI) for example contributed in effecting improvement in school management by the administrators (Pestaño et. al., 2018)

According to Fenker (2004) the management of facilities is a process that ensures that buildings and other technical systems support the processes of an institution. Likewise, the school environment influences the effectiveness of administrators in school management. They also conclude that: RAFI-SRP building specifics such as context and social space surprisingly poses a relatively weak but significant impact on student's academic performance. More specifically, the context (school building setting) has a direct, minimal significant impact, while a weak inverse relationship is attributed for social space, on students' academic performance. RAFI-SRP has a modest guidance on the academic performance of students among the community recipients as a whole. This may be owed to the fact that academic performance is multi factorial, such that the interplay of factors may be intrinsic and extrinsic. RAFI-SRP is just one amongst the extrinsic factors to the learners' academic performance to contend with. (p. 59)

Part of the study' recommendation is the conduct of a separate study on the classroom's constructed by RAFI from 2014 onwards vis a vis school's instruction quality to ascertain the construction's impact on the performance of learners.

The Educational Building Programme (PEB: Programme pour la construction et l'équipement de l'éducation) which operates within the Organization for Economic Co-operation and Development (OECD) published Educational Facilities and Risk Management in 2004. Aside from ensuring protection of school structures, it also emphasized the importance of natural disaster response training and education where establishing a hazard-free facilities needs to be attained. Natural calamities must be considered in the management of school buildings.

Asiabaka (2008) on facility management in Nigeria identified that there exists a direct relationship between the quality of school facilities and the products of the school. Ferreira (1995) posits that the students' and teachers' attitudes are shaped by the facilities and environment through which they are mediated. The physical school environment holds a vulnerable role in providing a better teaching-learning exchange in the academic institution. In a study by Cardenas and Cerado (2016) in the school climates and efficiency and learning outcomes of students in Koronadal City, their results showcased the impact that both teachers and students have keen observation and perception on what is present and available in schools. The variables in their study

have included the available facilities in their schools, the amount of academic resources such as textbooks, and the climate changes in Koronadal City.

Public Education and the State

Section 2 of Article XIV of the Philippine Constitution of 1987 states that "The State shall protect and promote the rights of all citizens to quality education at all levels, and shall take appropriate steps to make such education accessible to all." This section is always mentioned by advocates of free, accessible, and quality education. This section also underscores the responsibility of the state to provide education to its citizenry. Thus, basic education is governed and implemented through state policies.

According to the World Data on Education (2006), various factors influence the efficiency and effectiveness of both learners and teachers in the Philippines' basic educational system. Limited teacher trainings, inadequate facilities and equipment, and lack of instructional materials are considered as school-related factors while poverty, illiteracy of parents, and poor health and nutrition of students are non-related factors.

A major challenge being faced by the education sector in the Philippines is the lack of funding from the government. Facilities management and maintenance require steady and significant investment (Figuroa et al, 2016). In 2018, the Duterte administration had a proposed 3.579 trillion pesos national budget for 2019 where the education sector was allotted 659.3 billion pesos for prioritizing infrastructure development and securing more teaching materials (Rappler, 2018).

Recent reforms in the education system in the country make it essential to come up with significant investments and focus on the management and maintenance of school facilities (Figuroa, 2016). A primary focus would be on the school building details that provide a learning space that enhance learning of children. More school building and additional classroom facilities such as boards, chairs, tables, and desks remain an important addition to the effectivity of newly adopted curriculums. The study of Husen (1990) posits that school infrastructure and resources are main influential factors in determining the achievement of the students who have these readily available in their schools. Therefore in developing countries like the Philippines, making the education sector a priority in the annual national budget to have allocations for school facilities and infrastructure can significantly increase the students' abilities and capacity to learn.

The country's adoption of the K 12 curriculum also required a series of new resources to be able to facilitate a more effective learning environment for children. The very implementation of the program entails more physical facilities and instructional resources (Cocal and Marcellano, 2017). At the bare minimum, an effective environment that goes alongside with the goals of the K 12 curriculum must include a physical environment that is comfortable, appropriate, secure, well-ventilated, well-lit, and accessible. The standards and sustainability of these physical facilities determine a measure of the successful implementation of its planned curriculum.

The effectiveness of K-12 can be measured more accurately if the demands for a fitting learning environment would be met. Proper physical setups and adequate learning and instructional materials greatly affect the academic performance by students (Gonzales, 2013). Also achieving sustainability of these structures and materials entails staff operations and facility management programs.

In a study by Cocal and Marcellano (2017), the public elementary schools in Pangasinan were found to have the highest compliance in terms of physical equipment in classrooms such as armchairs, desks, fans, and blackboards and the establishment of more toilets and a covered court. However, other provinces and areas in the country cannot supply as much due to different local funding. In the study of Figuroa et al (2016), the association of top performing schools and buildings are strongest in the north of Eastern Samar. The prevalence of school buildings in the area is a result of a government effort to make education more accessible in each barangay. This has been an effective project in solving school quantity but didn't provide a fitting and stable quality of education for the children. The findings go back to the lack of maintenance and reconstruction of the physical buildings. These structural repairs weren't sustained in the long run due to the lack of funding to subsidize them. In the same study, the existence of individual classrooms as learning spaces was successful in giving the students a more desirable educational experience, unlike their school buildings. The researches cited that this is probably because classrooms entail the provision of furniture such as chairs, desks, fans, etc. and other amenities for student instruction. These facilities, however, go back the requirement of having additional financial resources that rural schools cannot necessarily support for themselves.

In a more theoretical plane, Fia and Sacconi (n.d) illustrate two plausible underlying theories behind the governance design of universities as they explored theory and empirics in using a multi-stakeholder approach to governance of educational institutions such as the university. One is based on the idea of a university as a public institution, financed and regulated in its general objectives by the State but, essentially an autonomous and self-governed entity. The other one that can be attributed to new public management philosophy and that adopts simplified principal-agent models, namely, universities are viewed as institutions operating in a quasi-market system where control is in the hand of external administrators.

In effectively managing educational facilities, one major consideration also is the qualification and skills of the managers. In the case of DepEd, these are the school administrators or principals. In this aspect, a lot of management tools have been developed over the years to help address this. A system that performs effectively can help the organization in creating a set of practices and policies that advance the skills. It also increases the motivation of staff in order to achieve the utmost possible level of performance over time. ("Human Resources...", 1999). The considerable importance of competency and job analysis is grounded in their efficacy as systematic procedures that deliver a rational basis on which to build a clear approach to handling human resources.

The Department of Education central office maintains its participation in direct management and operations, including decision making in project management and building of physical facilities. The department continues to issue memos as a basis for action even for local decisions (Read and Atinc, 2017).

In Republic Act 9155, known as the Governance of Basic Education Act, school heads have the authority, accountability, and responsibility for many things, among them

1. Setting the mission, vision, goals, and objectives of the school;
2. Creating an environment within the school that is conducive to teaching and learning;
3. Implementing the school curriculum and being accountable for higher learning outcomes;
4. Developing the school education program and school improvement plan;
5. Offering educational programs, projects, and services which provide equitable opportunities for all learners in the community;
6. Introducing new and innovative modes of instruction to achieve higher learning outcomes;
7. Administering and managing all personnel, physical and fiscal resources of the school;
8. Recommending the staffing complement of the school based on its needs;
9. Encouraging staff development;
10. Establishing school and community networks and encouraging the active participation of teachers organizations, non-academic personnel of public schools, and parents-teachers-community associations;
11. Accepting donations, gifts, bequests and grants for the purpose of upgrading teachers'/learning facilitators' competencies, improving and expanding school facilities and providing instructional materials and equipment. Such donations or grants must be reported to the appropriate district supervisors and division superintendents; and Performing such other functions as may be assigned by proper authorities."

Apparent from these responsibilities is the realization that school heads play a crucial role in leading and managing schools in the right direction, as they are being at the grassroots of Philippine basic public education. The school heads then are as important as their positions as these affect their effectiveness in the overall management of educational facilities in their school.

Public education, especially at the local level, is assisted by other government agencies including the local government unit. Provision for the creation of the local school board (LSB) is stipulated in the Local Government Code of 1991. It is a special body that caters to the needs of local public-school system. The late Jesse Robredo who champions local governance as being the former secretary of DILG and former mayor of Naga City, identified problems in relation to LSB. In his article, "Reinventing Local School Boards in the Philippines" (n.d.), he said that though LSBs are created in the local level yet most are not performing their required functions. Most often than not, the mayor and the district supervisor influenced decision-making. Thus, there is a need to reinvent LSB to make it functional and more attentive to the needs of local public schools.

In terms of direct technical assistance, the Department of Education (DepEd) in 2010 produced a revised Educational Facilities Manual through the Physical Facilities and Schools Engineering Division. The said manual was specifically prepared to provide the agency with reference material to expedite the competent and effective management of educational facilities. DepEd Undersecretary Ramon Bacani in his foreword says: "The school principals as they take on their new roles as implementers under a decentralized set-up of the Department will find this matter very valuable, with its discussion on different dangers that may result to disasters when not given significant attention through disaster preparedness and risk reduction. Topics include guidelines on school building construction; current practices and developments needed, among others. With the needed report easily accessible, this will aid in the formulation of policy and decision making relative to educational facilities management as well as a prompt and prudent resolution of issues, problems, and other concerns." The said manual serves as a comprehensive guide where statutory provisions, rules, regulations, standards, guidelines and instructions on the effective management and supervision of school facilities which otherwise would not be accessible to the field, and where it can result to the achievement of the quest for quality education.

In Education for All (EFA) National Review for the Philippines in 2015, it presented that perhaps the most visible success of the EFA Grand Alliance could be gleaned from the

The public-private partnerships (PPPs) reflected the success of the Education for All (EFA) program where 14.8 billion of pesos were generated by DepEd for the last three years (2011-2013). Private entities and individuals contributed to addressing the challenge of gaps in resources through the Adopt-A-School program. The Brigada Eskwela activities were successful as the program was able to motivate stakeholders to participate and do their share to ensure that the learning environment in public schools is welcoming and conducive to learning.

Progress has been noted in some of the indicators, although most of the upward targets have been too sluggish to make it to mark by 2015. As of 2013, there are remaining gaps, such as the following:

- a) Data needed to measure the gaps for ECCD, life skills for youth and adults, and adult literacy;
- b) Policies and programs to increase literacy among adults;
- c) 18 percentage point gap in Grade 1 entrants having some form of ECCD experience;
- d) 23 percentage point gap for kindergarten NER, 5 percentage point gap for elementary level NER, and 35 percentage point gap for secondary level NER to reach universal basic education;
- e) More than 25 percentage point gaps for both completion rate to ensure that all school-age children finish their basic education;
- f) 4 percentage point gap to eradicate basic illiteracy and 14 percentage point gap to eradicate functional illiteracy; and;
- g) 6 percentage point gap for elementary level and 24 percentage point gap for secondary level to reach the ideal 75 mean percentage score of EFA.

Educational Facilities and Learning

Pennsylvania State University's Center for Evaluation and Education Policy Analysis of the College of Education

(2015) found out that a large body of research over the past century has consistently found that school facilities influence teaching and learning in profound manners. Yet state and local policymakers often overlook the impact facilities can play in progressing outcomes for the stakeholders. While improving facilities comes at a financial cost, the benefits of such investments often surpass the initial fiscal costs.

In the United States, the costs for construction and repair needs for public schools rank the most serious and expensive in the nation. The items where the school's funding was allocated were ranked according to which was the most expensive and it revealed that the repair of roofs, heating, and conditioning, and painting remained the most expensive. Other items that were shortlisted were plumbing and sewer repairs, electric repairs, carpentry and insulation (Lunenburg, 2010). Statistics show that expenses of improvement can grow exponentially for public school systems. It is estimated that more than 127 billion dollars would be required to meet the need for new or improved academic space (McGowen, 2007). These repairs in the physical facilities of school structures allow planners and members of the academe to align initiatives such as improved test scores of students while having the tangible factors such as good lighting and indoor air quality. The factor of having desirable physical structures have proven to improve students' engagement in learning. Studies in Capistrano Unified School District (CUSD) in Orange County, California sites that students in classrooms with access to natural lighting and large windows performed better by up to 19 to 26 percent than other students who didn't have this access in their classrooms. Schools in Alaska have designated a committee dedicated to selecting equipment which students can work comfortably and furnishings that provide an aesthetically pleasing ambiance for students' day to day use. Various studies provide data on how the environmental designs of facilities may be physical or instructional influence student outcomes. The understanding of school facilities is used by school administrators to continue to evaluate the conditions of school buildings and their impact on students. Results of the study by McGowen (2007) reveals that students respond with higher academic potential with better school facilities. Because of this, aging of school facilities across the United States had led to more eager interests from the administration on how facilities can be maintained, renovated, or rebuilt. There has been an emphasis on school outcomes with regard to academic achievement, attendance, discipline, dropout rates, and teacher turnover rates that officials seek for more ways to improve their public education. A designated higher budget for renovation and maintenance of school buildings and other physical facilities was acted upon.

Lackney (n.d.) posited that an effective school facility is reactive to the changing programs of educational distribution, and at a minimum should provide a physical setting that is safe and comfortable, well ventilated, and aesthetically attractive. He added that the school facility is much more than a passive container of the instructional development: it is, rather, an integral component of the conditions of learning. The layout and design of a facility contribute to the place of experience of students, educators, and community members. Depending on the value and worth of its design and management, the building can contribute to a safety, sense of ownership, and safety,

personalization and control, secrecy as well as sociality, and lightness or crowdedness.

The need for effective management of educational facilities is highlighted in McGowen (2007) citing Lewis (2001) showed that "students' achievements and attendance were positively correlated to the educational facility". The connection also between educational facilities and teachers' effectiveness was shown by Stockard and Mayberry (1992) cited in McGowen (2007). It was remarked that in building school facilities, the shape, the size, and arrangement of the classroom affect the physical environment of learners and teachers which also influence the effectiveness of both teachers and students.

The study of Akomolafe et. al. (2016) in South West Nigeria revealed that there was a significant relationship between physical facilities and the motivation of senior secondary school students to improve their academic accomplishment. The findings presented that adequate physical, human and material resources motivate students towards learning if made available to public. It added that all goes back to fund allocation for education to make the public school conducive for teaching and learning, thereby improving the academic standard of the public.

When it comes to educational facilities and instruction, Wheeler (2014) examines how a change of facilities from a modern school building designed for educating middle learners from sixth through eighth grade, to a service that was over 50 years old and not organized to educate middle school-aged children impelled teacher instructional practices in the case of Blacksburg Middle School in the US. The findings indicate that an increased effort by the teachers to design instructional lessons focusing on necessary content only and modifying activities because of the decreased learning space was the main adjustments to instructional practices. The participants felt that having the technology installed in the alternate facility that was available in the original facility impacted instruction and student achievement in a positive way.

In the Philippines however, problems like these are being shouldered by various Philippine-based non-government organizations such as Synergeia and Check My School. These non-profit, non-government organizations work on developing local leadership, transparency and accountability, and engaging with communities to watch over and support the local schools. The context of the Philippines on the provision of school facilities is limited and lacks even the basic utilities and resources are so low that acceptable facility-to-student ratios are not reached (Figueroa et al, 2016). The capacity of each public school in the country to produce exceptional graduates and complete learning achievement depend mostly upon the government policy for providing sufficient resources. The study sites that the effects of school facilities rely on the social and economic infrastructure of each province in the country. This situation has demonstrated that the academic performance of students is somehow affected by the availability of school facilities. The study of Figueroa et al, suggests that the government should allocate enough funding to develop the three aspects that promote better learning environments for students. These are training more teachers, better road conditions, and having more toilets in the educational

institutions. The training of teachers relates to the basic goal of efficiently having a more informed and educated population. The second aspect of providing more public roads suggests that the lack of transportation infrastructure could be a factor in the inability to provide other important services such as electricity, tap water, sanitation and physical school facilities such as desks, chairs, boards, etc. This aspect of not having concrete and stable roads is also a factor of the decreased attendance of students over time. The last aspect relates to the distribution of more sanitary facilities because children spend the whole day in their schools.

Cardenas and Cerado (2016) cite that many criticisms about the quality of education in the Philippines go back mainly to the lack of appropriate and functional facilities in the classrooms. The learning of pupils is adversely affected by the lack of facilities, competent teachers, and other learning resources. Learning places and school facilities have a significant effect on education outcomes especially to children in developing countries (Figueroa et al., 2016).

The nationwide reform in the Philippine education system implemented in June 2012 created an increase of the pre-university education cycle from 10 to 12 years. This transformation demanded a significant investment in the education system's human resources and facilities, which prompted the legislators to increase the education budget in 2014 to 4.3% of the country's gross domestic product (Figueroa et al., 2016). Although this has been the highest allocation for education in the Philippines for more than 15 years, it still falls short of the UNESCO standard of 6%. It is well known that basic school facilities in the country have been inadequate and insufficient, with various media reports describing the dire situation at the start of every school year. Miralao, (2004). To alleviate the situation, various Philippine-based non-government organizations (NGOs), have been working on developing local leadership, instilling public transparency and accountability, and engaging with local communities to monitor and support their local schools (Robredo, 2008).

The geography of the country also relates to the capacity of public schools to come up with better facilities. It was reported by the Education Policy Data Center (2012) that moderate regional disparities in primary school attendance rates where the highest was 93% in Ilocos Region and the lowest was at 72% in the Autonomous Region of Muslim Mindanao (ARMM). Their statistics also showed that the schooling in northern regions has higher values and better outcomes compared to the ones located in the southern regions with lesser educational facilities and funding.

The insufficiency mentioned above is a perennial national problem but is understudied due to the scarcity of publicly available data on education facilities. Only a few researchers have investigated the Philippine public-school facilities who recounted the incidence of poor quality and geographically unsafe classrooms in the country and claimed that poor politics of school principals is a key factor in these inadequate structures.

Several studies confirmed that good school facilities improve the student experience, especially in the developing countries where schools with adequate facilities lead to

better education outcomes (Glewwe, Hanushek, Humpage, 2011). In the context of developing countries such as the Philippines, Nebres (2009) sites that addressing macro-problems such as social, political and economic environments have a more immediate and striking impact on education outcomes than specific issues on standardized curriculums, incompetence by teachers, lack of textbooks, and/or lack of efficient facilities.

School facilities have to be monitored not only to ensure compliance with the recommended standards but also to minimize disparities across the country and provide its citizens equal access to education. To quantify the effectiveness and quality of school facilities, some readings utilized definite variables such as classroom temperature, noise, lighting, building age, building cost accrued over time, ventilation, school furniture, space, attractiveness, and maintenance (Arsen & Davis, 2006, Cash, 1993), Hines (1996), Marshall (2009)). However, some studies employed an aggregated 'score' that accounted for more thorough building descriptions which are used to assess school facilities. These studies demonstrated the various physical, environmental and financial conditions that have to be assessed and monitored in the evaluation of facility suitability (Beynon, Hallak, and Postlethwaite, 1997, Hawkins and Lilley, 1998, Ortiz, 2002).

Geography is an essential factor in the establishment and supervision of nearly 60,000 schools across over 7000 islands in the Philippines, which has been described by Wernstedt and Spencer (1967) as having possess numerous, varied and uncommon characteristics. This diverse geography has significantly contributed to the regionalism within the country, which is divided into three island groups: Luzon (the location of Manila, the capital), Visayas and Mindanao. There is a lack of regional convergence in the nation due to the concentration of economic activities in the capital Diokno (2012). Industrial development is rapidly progressing in the provinces situated in the northern island of Luzon, and is very slow among the provinces in the southern island of Mindanao. Poor transportation networks exacerbated further the alienation of those areas that are distant from the urban centers (Human Development Network, 2013)

The diverse geography of the country explains as much as 47% of the variation in provincial income poverty as well as a significant portion of the variance in health, education and income variations (Human Development Network (2013). This interplay between economic activities and education outcomes in some developing countries is also discussed by Hanushek and Woessmann (2007) as they reported moderate regional disparities in primary school attendance rates in the country with the highest at 93% in the Ilocos Region (situated in the northern part of the country) and the lowest at 72% in the Autonomous Region of Muslim Mindanao (located in the southern part of the country). Similarly, the Human Development Network. (2013) reported that years of schooling in the northern regions has higher values (i.e., better outcomes) than in the center or southern regions.

In investigating educational facilities affect education outcomes, the spatial analysis usually employed. Utilizing various statistical tools, a study demonstrated that proximity

to poor neighborhoods result in lower education outcomes for students in the city of Campinas, Brazil (Cunha, Jimenez, Perez, et al., 2009). Same methods were employed by other studies but added other tools such as spatial lag and error models for the correlation of attendance and cultural norms (Chamarbagwala, 2009), spatial cross-regressive model to show school performance and geographical location (Elias and Rey, 2011). Fotheringham, Charlton, and Brunson (2001) employed spatial analysis using global and local regression models for estimating the spatial variation of mathematics scores. This was also utilized in proving the influence of socio-economic factors on educational outcomes in secondary schools (Naidoo, van Eeden, and Münch, 2013)

Challenges on Educational Facilities Management

Lackney and Picus (n.d.) pointed that an effective school facility is responsive to the changing programs of delivery of instruction, and at the minimum should deliver a physical environment that is safe and accessible. It must also be well illuminated, well ventilated, and aesthetically pleasing. Basing from these standards, Philippine public elementary education needs a lot of improvement to do. It is beset by challenges that continue to affect the quality of instruction and learning in many parts of the country.

One of the challenges that public education is facing is the limited provision of school facilities. Figueroa et al, (2016) presented that provision of school facilities is limited and lacks even the basic utilities. Inadequate classrooms remain as the top dilemma of the Department of Education and the series of natural calamities that hit the country worsened it ("Classroom shortage still...", 2017).

Aside from classroom shortage, schools also face shortage in other facilities. In 2016, DepEd data showed the following shortages: 235 million instructional and other learning resources; 2.2 million school armchairs for 2016 and 66,492 sets – each seat with 45 seats and 1 teacher's desk; and 44,538 computer packages (Umil, 2017). It added that the students but teachers both bear the burden of the lack of learning materials.

Geography is also a challenging factor in the establishment and supervision of nearly 60,000 schools across over 7000 islands in the Philippines, which has been described by Wernstedt. The diverse geography led to a lack of regional convergence in the nation due to the attention of economic developments in the capital (Diokno, 2012). As industrial development rapidly progresses in areas in Luzon, there is very slow progress in provinces in the southern island of Mindanao. Poor transportation networks further alienated those areas from the urban centers (Human Development Network, 2013).

Over-all Summary

The related literatures available posit that there are different approaches and strategies to address different concerns in educational facilities management. And it can be noted in various studies that different context and situations require produce different concerns and require different solutions. Also, different assessment and evaluations can be used for different kinds of intended results when researching on the said topic.

Existing related articles mostly point to the interplay of different factors significantly affects the management of

educational facilities. From policies, grassroots situations, geography, and management model among others, educational facilities can be effectively managed if many factors are put into consideration.

3. RESEARCH METHODOLOGY

This chapter presents the methods and procedures used in the study including research design, environment, participants, sample size and techniques, research instrument, procedures of data gathering and analysis.

Design

This is a descriptive-correlational study which specifically determined the predictive on the effectiveness in managing educational facilities. A descriptive correlational design is utilized in this study where data gathered from survey presented through tabular and graphical presentations with corresponding interpretation. The relationships of variables are then presented. In this study, the levels of competency and the levels of effectiveness of in the management of educational facilities in the DepEd District of Pandan are variables considered for correlation. The adequacy of school facilities in the district are first then described and then followed by the presentation on the levels of competency and the levels of effectiveness. Out of the correlation between variables and situations of educational facilities cited by respondents through survey conducted, a proposed educational facilities management model is presented. As designs such as descriptive correlational is used in evaluation research where findings are used as basis by decision or policy makers to assess effectiveness of certain programs and projects and to provide feedback (Trochim, 2006), the same is the case in this study where a proposed model based on results of data gathered can be implemented in schools in the District of Pandan.

Environment

The study was conducted in the District of Pandan, Antique as the researcher is a native of the place and will cover the whole Department of Education Pandan District where there are 32 public elementary schools. The whole district is divided into six zones with at least 5 or more schools per zone.

Pandan, Antique is a coastal town with a total land area of 113.98 square kilometers. These constitute 4.18% of the lone province of Antique's total land area. The 2015 census revealed that its population has reached 34,333 million. This characterized 5.90% of the total population of Antique province or 0.46% of the general population of the Western Visayas region. Based on these figures, the population concentration is computed at 301 residents per square kilometer or 780 residents per square mile.

Table 1 Distribution of schools in Pandan District according to category

School Category	Frequency	Percentage (%)
Primary	1	3%
Combination (Multi/Mono)	6	9%
Multigrade	9	28%
Monograde	15	47%
Central	1	3%
Total	32	100%

DepEd Pandan District has 32 public elementary schools composed of one central school or 3%, six combination or 19%, 9 multi-grade or 28%, 15 monograde or 47%, and 1 primary school or 3%.

A primary school category offers Kindergarten to Grade 4 only. A multigrade school is when a teacher has to teach two student grades in the same class. Most multigrade schools are located in a far flung and hinterland barangay in the District of Pandan.

The number of teachers is insufficient and the number of students is not enough to open another class. A monograde class is being handled by a teacher per class. Sometimes, there are relieving teachers that handles specialized subjects. This is the most ideal class and classroom setting in the educational system.

Combination of multi/mono grade schools are those with multigrade and monograde in a school. A central school is a big school and is usually located at the center of the district. These is where the schools district supervisor also held office.

The table below show the number of teachers per school category in the District of Pandan. The school are categories to primary, combination (multi/mono), multigrade, monograde and central school.

Table 2 Number of teachers per school category

School Category	Frequency	Percentage (%)
Primary	4	1.68%
Combination (Multi/Mono)	30	12.61%
Multigrade	36	15.13%
Monograde	136	57.14%
Central	32	13.44%
Total	238	100%

Data on the number teachers show that monograde schools have the greatest number of teachers combined. A monograde school has a complete number of teachers, some are with relieving teachers handling specialized subjects. The data revealed that there are 15 monograde schools in the District of Pandan therefore it also has the biggest number of teachers combined. A combination of multi and monograde schools also has the greatest number of teachers combined.

The only central school in the district is the school with the biggest number of teachers for one school with 32 teachers. The central school has four sections per grade level. One section is for students who are fast learners, and the rest are for regular students. There are two classes for children with special needs. It has one relieving teacher per grade level making the central school, has the biggest number of teachers in the District of Pandan.

Another significant data is the number of teachers in the only primary school in the District of Pandan. It is a monograde class with four teachers. Students then enrolled to an elementary school in the adjacent barangay when they entered grade 5 and 6.

Table 3 Number of students per school category

School Category	Frequency	Percentage (%)
Primary	27	0.55%
Combination (Multi/Mono)	569	11.60%
Multigrade	669	13.63%
Monograde	2,678	54.58%
Central	963	19.63%
Total	4,907	100%

The average number of students for schools with a combination category is 94.83, for monograde schools is 200.33, and for multi-grade is 74.33. A monograde school is located in a barangay with bigger population while multigrade school is located at the outskirts of the national highway with less populated barangays.

The Central School has 963 students while the primary school has 27 students only. The students from central school are mostly coming from the metro barangays of Centro Sur, Centro Norte, Baybay and Carmen. There are also students coming from other barangays because of the workplace of their parents. The primary school is located in a hinterland barangay of the District of Pandan.

Respondents

There were 64 respondents in this study. They are appointed property custodians, and head teachers or principals of elementary schools in the Department of Education, District of Pandan. Out of the 64 respondents, 49 or 77% were females while 15 or 23% are males. In terms of age, the youngest respondent was 23 years old while the oldest is 63 years old. The mean age of the respondents was 43.25.

This study utilized a completed enumeration of participants or universal sampling hence, that all identified respondents in Pandan District were part of the survey.

Inclusion Criteria: The following were the criteria used for respondents to be included in this study. Principal or teacher in charge of 32 elementary schools of DepEd Pandan district who are still in active service from 2018 to present and can provide information on the topic studied.

Appointed property custodians of each elementary school for the school year 2018-2019. There will be no preference for age, gender, and ethnicity as long as they qualify on one of the two above-mentioned criteria.

Exclusion Criteria: The following were excluded from the survey. School heads and property custodians of Pandan District who were experiencing serious health problems during the time of data gathering. School head and property custodians who were facing administrative or criminal case in relation to educational facilities and the representatives of identified respondents.

Instruments

The tools used for this study were the survey guide. The survey guide was composed of four parts: a) profile of respondent and the school, b) extent of adequacy of school facilities, c) level of competency of the implementers in managing educational facilities and d) level of effectiveness in managing educational facilities. The last part of the guide

is the question about what are the challenges encountered in the management of educational facilities.

The first part focused on information on the demographic profile of the respondents. Frequency count and percentage count were used for the profile of the respondents.

The second part contained survey on the extent of adequacy of educational facilities using the School Facilities Evaluation Checklist derived from the CEFPI Guide for Educational Facility Planning of the Association for Learning Environment (2003). Respondents will be asked to rate the identified educational facilities in their school whether they a) exceed, b) meet, or c) fall below the standards. They were also asked whether based on specific standards, the educational facilities impede learning or not. In this part, frequency count and percentage count were used to present results of survey.

The third part contained the survey on the level of competency of the implementers in the management of educational facilities in terms of each of the nine aspects in the DepEd Educational Facilities Manual, thus, there are nine items that were rated where each had its own sub-items.

The fourth part contains the survey on the effectiveness in the management of educational facilities in terms of each of the nine aspects also found in the DepEd Educational Facilities Manual.

Both the third and fourth portions of the questionnaire utilized a Likert Scale ("What is a Likert scale?", 2019). The use of the said scale is one of the most reliable ways to measure opinions, perceptions, and behaviors). Below was the Likert-type scale with its corresponding interpretation that was used for part 3 and 4:

Scale	Level of Competence (Qualitative Description)	Level of Effectiveness (Qualitative Description)
1	Not competent	Not Effective
2	Fair	Fair
3	Moderate	Moderate
4	High	High
5	Very high	Very high

For the third and fourth parts of the survey, the researcher deemed it applicable to employ a Likert-type scale to measure how respondents evaluate the level of competence and effectiveness in the management of educational facilities. And as there are usually five to seven items to choose in the Likert scale ("Statistics How To", 2015) and the researcher opted to have five for this study for manageable data analysis compared to having seven items to choose.

The researcher used the survey tool since it was consistent in implementing a scientific protocol in obtaining data from a big number of respondents. The survey was the appropriate method in gathering information and that data generated were easily organized during data analysis.

Validity and Reliability

The survey questionnaire was checked by experts as to its validity. Facilities Section of the Schools' Division, Schools District Supervisor and Principals from other DepEd District

such as Libertad or Sebaste. This is to ensure that biases due to familiarity were eliminated as most experts are not from the District where the study was conducted. Evaluators given a validation tool for them to evaluate the questionnaire based on the general criteria such as whether the questions were relevant to the topic studied, qualitative description for each score was appropriate, or statements were clearly stated and comprehensible, among others.

The researcher conducted a pretest on 10 respondents to test the survey questionnaire's reliability. A statistician was then consulted for the reliability test in which Cronbach's Alpha (α) utilizing Statistical Package for Social Sciences (SPSS) was used to measure the internal consistency ("reliability") of the questionnaire. The results showed that the survey questionnaire was highly reliable as it was internally consistent with an alpha of 0.96 since 0.7 is the minimum alpha of internal consistency.

Data Gathering Procedure

Preliminary: The researcher first discussed his planned research topic with his adviser and upon discussions and proposed revisions; a research proposal was finalized. Permission from the Dean of the Graduate School of Education of the University of the Visayas for approval and for the conduct of the study was requested. Upon approval, a letter requesting permission to conduct research and survey was sent to the Officer-In-Charge, Assistant Schools Division Superintendent of the Division of Antique through channel before it was sent to institutions and identified respondents. Questionnaires were then sent to experts for evaluation. A pretest was then conducted and the results were tested by a statistician for reliability. The questionnaire passed the experts' evaluation and he reliability test.

Actual Data Gathering: Data gathering activities were then conducted after all pertinent documents and protocols were made and observed. It was then followed by the main data collection procedure where a survey with the use of a questionnaire was administered. After the respondents finished answering the survey, questionnaires were then gathered for analysis.

Data Management: Data gathered were then encoded in Microsoft Excel for data management. Tables and graphs were utilized for a clearer presentation. Data were collated, analyzed, and interpreted to serve as the basis for reporting the findings, conclusion, and recommendation of the study. Percentage analysis was made in presenting results for the extent of adequacies of school facilities, the levels of competencies, and the levels of effectiveness in the management of school facilities in the District of Pandan. On the other hand, a thematic analysis was used in presenting the challenges encountered in the management of educational facilities.

Data Collection

A review of documents and literatures regarding the topic was conducted. Institutions that have materials or references on the topic studied were sought. Survey activities were then conducted by the researcher where identified participants were given survey questionnaires for them to answer. The questionnaire contained all information about the study and that participants were asked of their consent for them to be part of the study. The survey lasted

more or less half an hour per respondent. The researcher conducted the survey starting from the second week of January to the third week of February 2019. It was conducted in Pandan, Antique where all of the respondents reside and, in a venue, comfortable for the participants.

Data Analysis

In question number 1, 2, and 3 the percentage frequency distribution was used to present data. Tables were then used to provide a clear presentation where interpretations were based.

In questions 4 and 5, data were analyzed using themes. In here, patterns across data were identified, analyzed and presented. This analysis was deemed appropriate it provided inductive and deductive interpretation of the study.

The proposed educational facilities management model was then proposed to address question number 6. A sustainability management program was provided to further present in details how the model should be implemented. The model was based on results of the study.

Correlational Analysis

The independent variables in the study are the stakeholders which include the teachers, principals, supervisors, school heads and administrative aids. The dependent variables are the management and administrative control, establishment, separation of annexes, integration, conversion and naming/renaming of public elementary schools, proper utilization of education facilities, property responsibility, BEIS, financing educational facilities, procurement of infrastructure, projects, goods, and services, accounting and recording of school property and disposal of educational facilities.

The correlation of both the independent and dependent variables relay the management and maintenance of the educational facilities in the elementary schools in the district of Pandan, Antique. The results of this relationship defines the values and factors needed for the management these facilities

Ethical Consideration

A. Protection of Human Rights

In this study, the researcher ensured the safeguarding of the rights of respondents by divulging all information about the study conducted to the respondents including possible risks and benefits related to the study. To ensure that indeed these were observed and carried out, the proposal, including pertaining documents such as informed consent form and survey questionnaire were submitted to the Internal Review Board/Ethics Review Board for evaluation.

B. Risk-Benefit Ratio Determination

The results of this study would school heads and property custodians a great help in predicting factors needed for effective management of educational facilities in their respective schools. They could then be able to formulate and implement innovative measures to address concerns on educational facilities management for the benefits of all stakeholders.

It was cleared to the respondents that would not receive honorarium or any other incentive for their participation in

this study. They were not subjected to any physical harm while the data gathering was conducted through survey. The survey was conducted in the place where the respondents felt comfortable and at ease so as not to inconvenience them.

In general, the benefits accorded to the respondents especially through the findings of this study outweighed any potentials risk or discomfort that they had experience if ever. And that the benefits that this study provided to the whole DepEd District of Pandan also outweighed the cost to respondents.

C. Content, Comprehension and Documentation of the Informed Consent

The researcher ensured that the 15 elements under this category were integrated in the informed consent, implied consent and process content. Specifically, the researcher was transparent with everything about this study to the respondents. By doing so, the respondents were empowered as they had the choice of whether to participate or not in the study based on the information presented.

It was also discussed with respondents that they could file complaint(s) to the University of the Visayas - IRB through the address stated in pertaining documents if they feel that the researcher was not honest and transparent with them.

D. Privacy and Confidentiality

The researcher respected anonymity, confidentiality and privacy of the respondents and whatever information disclosed was used solely for the benefit of the study. These things were stated in the communication letters and informed consent form. In the survey questionnaire, the respondent had the option whether to state her/his name or not. The researcher was consistent in ensuring privacy and confidentiality as aside from the informed consent form and the option of confidentiality of the identity in the survey questionnaire, he also informed respondents verbally before data collection begins about their right to privacy and confidentiality. The researcher respected whatever the respondents decided to do like withdrawing from participation the study even if it had started already or they could choose to have their answers disregarded even after they had finished answering the survey.

E. Debriefing, Communication and Referrals

In this study, there was no need for debriefing. Communication with respondents was through printed letter and personal visit. Respondents were asked for other individuals they knew who can provide additional information on the topic studied.

F. Incentives and Compensation

There was neither financial incentive nor compensation for respondents in their participation in this study, only intangible which could translate to concrete results. It was made clear to them that their participation would provide insights that could help in improving the management of educational facilities in the district.

G. Conflict of Interest

In this study, there was no identified possible conflict that arose from the financial, familial, or proprietary considerations of the PI, sponsor, or study site. The topic of the study is of great interest to respondents in particular and

the district in general as the results could be of great value to them, therefore all were willing to extend their help through their participation.

H. Recruitment

Though respondents were initially identified as those who are the school heads and property custodians, it was still made clear to them that they still have the right not to participate in this study and that no coercion or undue influence happened just to have them participated, and that they could still withdraw with no fear of sanction or penalty.

I. Vulnerability Assessment

In this study, the respondents were composed of principals or teachers in charge and property custodians. Those who are suffering from serious illness were not included as respondents. Pregnant women who were identified to be respondents were delisted as respondents.

Extent of Adequacy of Educational Facilities

The educational facilities included in the survey are the following: a) school location and site, b) administrative and service facilities, c) teacher’s workroom, d) counselor’s office, e) library, media and technology centers, f) computer laboratory, g) kindergarten classrooms, h) grades 1-6 classrooms, i) health service units, j) stage facilities, k) food service, and l) segregated toilets. Data gathered are presented in tabular form with discussions after each table. In this portion, the extent of adequacy of educational facilities in different school categories are presented and discussed.

School Location and Site

In this facility, the criteria rated by respondents include size, accessibility, prospect for expansion, absence of undesirable noise and traffic, topography, landscape, suitability for special instructions, sidewalk, stability and drainage capacity of soil, parking area, playground and recreational area including age-level appropriateness.

Table 4 Extent of adequacy of school location and site

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	1	3.13	1	3.13	2	6.25
Meets	0	-	4	12.50	4	12.50	10	31.25	0	-	18	56.25
Below	1	3.13	1	3.13	5	15.63	5	15.63	0	-	12	37.50
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

The table presents that more than half of elementary schools in Pandan District met the standards of adequacy for school location and site. The central school has the total land area of 27,695 as per Tax Declaration Number 0001-00111. The school is easily accessible and conveniently located and suitable for special instructional needs. These is where most of the district activities are held in the district.

Two schools exceed the standards while 12 are below standards. Most schools also exceed the standards are located along the highway and with sufficient playground and recreational areas for students. Some schools fall below the standards are newly establish schools. A combination multi/mono grade school for instance has the total land area of 430 square meters. Although, the school has is located along the provincial road but the site is not enough to meet educational needs and for future school building construction.

It is worth noting that the only primary school in the district is below the standards of adequacy because the school is located in the hinterland area where topography is mountainous, access is somewhat limited, and the area has no adequate site for future expansion.

Part of things to consider is the National Building Code of the Philippines that requires the land or site upon which construction of any building or structure, or any ancillary or auxiliary facility thereto, shall be sanitary, hygienic or safe (as cited in Educational Facilities Manual). For school sites which are intended for formal education where children spend most of their time, the same shall be at a safe distance, as determined by competent authorities, free from streams or bodies of water and/or sources of air considered to be polluted; far from a volcano or volcanic site and/or any other building considered to be a potential source of fire or explosion.

Administrative and Service Facilities

In this facility, standards included are the adequacy of the reception/waiting area and if administrative personnel are provided sufficient work space and privacy.

J. Collaborative Study Terms of Reference

It was made clear to respondents that in case the researcher wanted to present the study through a paper presentation in a conference or to publish this in a journal, proper acknowledgement would be accorded to them

4. PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents data gathered including the analysis and interpretation. It is divided into six part namely: Extent of Adequacy of Educational Facilities; Level of Competency of Implementers; Level of Effectiveness of in Managing Educational Facilities; Factors Predicting the Level of Effectiveness in Managing Educational Facilities; Challenges Experienced in Managing Educational Facilities; and Proposed Educational Facilities Management Model. Data presentation and analysis is done through thematic discussions for purposes of clarity and organization.

Table 5 Extent of adequacy of administrative and service facilities

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	-	-	-	-	-	-	1	3.13	1	3.13	2	6.25
Meets	1	3.13	3	9.38	6	18.75	10	31.25	-	-	20	62.50
Below	-	-	2	6.25	3	9.38	5	15.63	-	-	10	31.25
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

As shown in the table, more than half of the schools meet the standards for the adequacy on administrative and service facilities while a considerable number are below standards, and two schools exceeds the standards for the adequacy of said facilities.

Schools with administrative office are schools with excess classrooms. Mostly are condemnable buildings which the Parent-Teachers Association opted to repair through its initiative. A mono grade elementary school for instance has an administrative building repaired through the maintenance and other operating expenses (MOOE) of the school. Another elementary school has a makeshift room temporarily attached at the side of the school building to cater administrative works of the school. The school is managed by a Teacher-in-charge whose functions is primarily for a classroom teacher.

Based on standards, an administrative and service facilities should have adequate reception/waiting area and administrative personnel are provided with sufficient work space and privacy. This implied that more than half of the schools doesn't have the adequacy on administrative and service facilities but does not impedes learning of the students.

Teachers Workroom

In this facility, the adequacy in the size of, and provision of access to, communication technology in, work area of schools was assessed.

Table 6 Extent of adequacy of teachers' workroom

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	1	3.13	0	-	1	3.13
Meets	0	-	4	12.50	5	15.63	9	28.13	1	3.13	19	59.38
Below	1	3.13	1	3.13	4	12.50	6	18.75	0	-	12	37.50
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

Findings reveal that more than half of schools in the district meet the standards while nearly half are below standards. The adequate standards were 125-250 ft² and only one exceeds the standards, a monograde school. The Principal's office is usually used as teacher's workroom.

Data is indicative that though more than half of schools meet the standards for the said facility, there is a need for other schools to catch up and be at par with others. Teachers, being important persons in the educational development of pupils, badly need working space conducive for the realization of their utmost potentials in instruction or facilitation of learning.

The implication of the result is that the adequacy of teacher's workroom invariably affects the educational performance and achievement of students for teachers has provided with access to communications technology. This adequacy has the direct impact on the quality of learning for it helps reinforce the knowledge and skills of the teachers in a certain subject area. Internet monthly subscriptions which were needed by teachers in instruction and other tasks were maintained through the maintenance and other operating expenses of the school.

Counselor's Office

In this facility, schools were assessed based on the adequacy of space, privacy, and access to student records.

Table 7 Extent of adequacy of counselor's office

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	0	-	0	-	0	-
Meets	0	-	1	3.13	0	-	2	6.25	0	-	3	9.38
Below	1	3.13	4	12.50	9	28.13	14	43.75	1	3.13	29	90.63
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

The findings shown in the table indicates that the counselor's office is the facility where almost all of schools fell below standards. Based on standards, counselor's office has an adequate space of 100-125 ft². It should also insure privacy and has an easy access to students' records.

Schools under primary, multigrade, and central categories fall below standards. Only two schools meet the standards of adequacy. None of the schools exceed the standards.

A major reason that would explain the dismal result is that in the District of Pandan, just like other districts, there is no item for a guidance counselor. The position is just designated to a teacher who has to attend to other task such as instruction and bureaucratic function. In schools located in mountainous areas, the situation is worse because entry level teachers who are usually sent in those areas would always request for transfer they had served there causing high turnover rate. This caused a frequent change of designated counselors in those areas. If a need for counseling arise, it could be done in any area that is private, thus, it was reflected in their answer that the counselor room was one of the educational facilities in the District of Pandan fell below standards.

Schools should have an adequate facility for counseling including a guidance counselor. In reference to legal mandates, it is stipulated in Section 9 of Batas Pambansa Blg. 232 that one of the rights of students mandated by the law of the land is the right to school guidance and counseling services. Though there is the RA 9258 or Guidance and Counseling Act of 2004, DepEd only allows a guidance counselor position in secondary school. It was only last year that DepEd announced for the need of 35,000 guidance counselors because of the passage on Mental Health Act where mental health education will be taught in schools.

Library, Media and Technology Centers

On library, media and technology centers, the schools were assessed based of the following standards: provision of appropriate space; adequacy of books, newspapers, periodicals, pamphlets, recordings, tapes, and other materials; and provision and utilization of pace for technology, including computer laboratories.

Table 8 Extent of adequacy of Library, Media and Technology Centers

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	0	-	1	3.13	1	3.13
Meets	0	-	0	-	0	-	7	21.88	0	-	7	21.88
Below	1	3.13	5	15.63	9	28.13	9	28.13	0	-	24	75.00
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

Findings shown that most of schools fall below the standards while seven monograde schools meet the standards. Only the central school in the district exceeds the standards for the said facility. Data also show that all schools belonging to combination, multigrade, and primary categories fall below standards.

The big number of schools falling below standards is indicative that the district is lagging in education technology and that the digital divide is evident. And as the general educational landscape shifts from the traditional face-to-face instruction to learning through social media platforms, Pandan District needs to address this challenge.

The lack of classrooms is the reason why there is no structure for the library. Teachers just create reading nook inside the classrooms. In K-12 and Revised Basic Education Curriculum, the library period was no longer included. Technology centers like audio- visual rooms are seldom present in many schools in the district. Except for Pandan Central School which has a conference hall, all other schools do not have it.

Computer Laboratory

The adequacy of the size of the laboratory and the provision of workstation were used to assess the computer laboratory.

Table 9 Extent of adequacy of computer laboratory

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	0	-	0	-	0	-
Meets	0	-	4	12.50	1	3.13	10	31.25	1	3.13	16	50.00
Below	1	3.13	1	3.13	8	25.00	6	18.75	0	-	16	50.00
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

Findings presented above show that none of the schools exceed the standards in computer laboratory facility. Half of schools meet the standards of adequacy while another half falls below standards. This is indicative half of the schools in the district need to improve in this matter. This is not just a concern of the school head and property custodian but also in the top-level position in the province. In this age where pupils tend to be interested in many things and that the mode of learning for them is through multi-media, an adequate computer laboratory is very much needed.

The reason for the data presented is that most schools in the district are recipient of the DepEd Computerization Program. This commendable project is marred by the lack of rooms intended to be used as computer laboratory. Most schools were recipient schools of the DepEd Computerization program yet they have no space for computer laboratory. The practice in the district is that in a classroom, half is utilized for instruction while the other half serves as a computer laboratory.

The Computer laboratory is a special instructional space necessary to meet the current and future demand of modern technology. The room shall provide at least a minimum space of 1.40 square meter per place and shall accommodate at least

ten (10) networked Personal Computers (PCs) with other necessities and accessories, such as: Computer tables and chairs; Proper electrical wirings and outlets; Air conditioning units – 2 window type, preferably 1.5 hp each; Windows and doors with iron grills and locks. (2010 Educational Facilities Manual)

In a central school though there is a computer laboratory, there is still the inadequacy of working space because there are 12 workstations (2 are not working) for 35 pupils. (Placio, pers.comm)

Kindergarten Classrooms

Kindergarten classrooms were assessed based on location and adequacy of classrooms, and sufficiency of equipment and materials.

Table 10 Extent of adequacy of kindergarten classrooms

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	1	3.13	0	-	2	6.25	1	3.13	4	12.50
Meets	0	-	2	6.25	4	12.50	12	37.50	0	-	18	56.25
Below	1	3.13	2	6.25	5	15.63	2	6.25	0	-	10	31.25
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

Kindergarten is the entry level for the K to 12 Basic Education Curriculum and the admission age is at least 5 years old before August 31 of the present school year as DepEd Order No. 47 s. 2016 otherwise known as Omnibus Policy on Kindergarten Education. As stated in MEC Order No. 24, s. 1978 dated July 26, 1978 the following standards for the physical structure of at least 7m x 9m with equipment and materials such as toilet and washing facilities, activity corners, listening/speaking and acting area, reading corner and playing space.

More than half of schools meet the standards of adequacy for the said facilities while roughly on third are below standards. A few exceeds the standards. These show that kindergarten classrooms of schools in the district just need to device initiative to address the concern on why they fall below standards for them to be at par with those schools which has met or even exceeded the standards.

Even though most classrooms do not meet the standard size but the fact the kindergarten class are split in two sessions, morning and afternoon, explains the adequacy of said facilities in more than half of schools in the district. For example, if there are 34 kindergarten enrollees, there 17 pupils for the morning session and 17 for the afternoon session making the classes manageable and conducive for learning. A monograde elementary school have this kind of setup. Small primary schools have only 1 session only because that have 15 – 20 enrollees.

Grades 1-6 Classrooms

Schools were assessed based on the size of learning areas, adequacy of storage, provision of communication technologies, equipment and materials, location and absence of disruptive noise of learning area.

Table 11 Extent of adequacy of Grade 1-6 classrooms

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	1	3.13	0	-	0	-	0	-	1	3.13
Meets	0	-	1	3.13	2	6.25	9	28.13	1	3.13	13	40.63
Below	1	3.13	3	9.38	7	21.88	7	21.88	0	-	18	56.25
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

More than half of schools in the district fall below standards while less than half meet the standards. It is interesting to note that only one exceeds the standards for classrooms.

The present ideal classroom size is 7.0 meters in width/depth x 9.00 meters in length or 9.00 meters in width/depth x 7.00 meters in length measured from the centers of the walls (DepEd Order No. 64, s. 2017). But classrooms were constructed way before this thus, more than half fall below standards. The pre-fabricated classrooms have a standard measure of 7m x 6m and Bagong Lipunan Classrooms have 6m x 8m standard size, while the standard design of classroom when DepEd was still DECS was 7m x 8m. Most of Bagong Lipunan Building (constructed during the Marcos administration) in the district are still used because they were repaired under the Third Elementary Education Project (TEEP).

Health and Services Unit

The standards for this facility where the assessment of schools was based were the availability and size of unit, and adequacy of equipment and furnishings (curtained or small rooms with cots, bulletin board, toilet, lavatory, scales, medicine chest, refrigerator with locked storage, first aid kit, desk, chair, medication box, etc.).

Table 12 Extent of adequacy of health services unit

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	0	-	0	-	0	-
Meets	1	3.13	1	3.13	2	6.25	7	21.88	1	3.13	12	37.50
Below	0	-	4	12.50	7	21.88	9	28.13	0	-	20	62.50
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

Findings presented shows that the health and services unit of many schools fall below standards while less than half meet the standards and none exceeds them. Schools that have inadequate health services unit are a common thing in many rural areas. Most schools have equipment that could somewhat address the health needs of pupils but almost all schools do not have a room that serves as a clinic. Only a central school has a school nurse.

Since schools bring the large number of students and teachers together in one place, an elementary school in the District of Pandan should have adequate size and equipment of health service units. Teachers assume the responsibility themselves as first aid health provider in school. Supplies were donation from stakeholders of the school.

The issue generated from the result of the survey is the discussion on the role of the public elementary schools in delivering access to primary care. Although it does not directly impede learning in general but risk of academic failure to some.

Stage Facilities

In this facility, schools were assessed based on the adequacy in size and equipment (floor, electrical circuits, light control panel, microphone outlets, etc.).

Table 13 Extent of adequacy of stage facilities

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	1	3.13	0	-	1	3.13
Meets	0	-	2	6.25	0	-	11	34.38	1	3.13	14	43.75
Below	1	3.13	3	9.38	9	28.13	4	12.50	0	-	17	53.13
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

The stage facilities of the only primary school, some combination and monograde schools, and all multigrade schools in the district fall below standards. It is notable that all multigrade schools do not have adequate stage facilities. Some multigrade schools in the district could not provide a venue conducive for big activities that school heads would even utilize the stage of their barangays.

Though most schools have structures for stage, they still lack equipment such as electrical circuits and microphone outlets. Most schools just rely on outside provider for their sound system whenever they conduct a big activity.

Other schools met the standards for adequacy because PTCA and alumni association donated them. An elementary school's stage of a monograde for instance was built through the project by its alumni association. Another combination of multi/monograde school were donated and maintained by Varon-David Family through Adopt-a-School Program of DepEd. The covered court of a central school were made possible because of the Local Government Unit of through the Special Education Fund.

Food Services

Schools were assessed for their food services based on the following: provision for cooking, dining, serving, etc.; adequacy in size; adequacy of food and non-food storage; equipment and equipment storage; and convenience for deliveries and removal of wastes

Table 14 Extent of adequacy of food services

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	0	-	0	-	0	-
Meets	0	-	1	3.13	1	3.13	8	25.00	1	3.13	11	34.38
Below	1	3.13	4	12.50	8	25.00	8	25.00	0	-	21	65.63
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

Another worth noting that there are vendors outside the gates who cater to the needs of pupils for food especially during recess time. The high standard for food services is one of the main reasons why most schools in the district fall below the standards. There are schools where feeding for pupils were sponsored by private individuals such as a monograde school where Varon-David family is currently assisting. They need to strictly follow the guidelines for Nutritional Assessment and Food Safety where color coding of food is provided (green – allowable, yellow – allowable but not every day, red- prohibited).

The implementation of School-Based Feeding Program (SBFP) in last year caters only to undernourished Kinder to Grade 6 (DepEd Order No. 015, 2. 2018), thus other pupils who are not included resort to buying from vendors outside their school. All schools have a teacher managing the canteen through a cooperative style. This is to regulate the types of foods to be sold in the canteen but there has no established service area provided for cooking, serving and dining. Even the central school, the temporary service area being utilized at the present is a condemnable building that temporarily served as kitchen for the feeding program.

Segregated Toilets

Segregated toilets of public schools were assessed based on the following: adequacy of size; provision of with continuous water supply; location within the view of the public; enough light or with electricity; and the presence ramp intended for person with limited mobilization.

Table 15 Extent of adequacy of segregated toilets

Extent of Adequacy	Primary		Combination Multi/Mono		Multigrade		Monograde		Central		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Exceeds	0	-	0	-	0	-	0	-	1	3.13	1	3.13
Meets	0	-	2	6.25	5	15.63	11	34.38	0	-	18	56.25
Below	1	3.13	3	9.38	4	12.50	5	15.63	0	-	13	40.63
Total	1	3.13	5	15.63	9	28.13	16	50.00	1	3.13	32	100.00

The table above shows that more than half of schools have segregated toilets that meet the standards while nearly half have toilets below standards. Classrooms were constructed way before this thus, more than half fall below standards. Toilets inside the classrooms are constructed through the efforts of the Parent Teachers Association (PTA). Segregated toilets were projects constructed in connection with the gender and development program of the government in addressing the concerns of all genders including lesbian gays bisexuals and transgenders (LGBT) and differently-abled persons.

Every student has the right to access of clean and safe washing facilities and that includes a segregated toilet. An adequate segregated toilet encourages formation of cleaning habits and promotes cultural change especially on the menstrual cycle and safe practices of the female students and teachers. A segregated toilet meets their needs and guarantee washing and providing privacy especially when attending to their needs related to menstruation.

It is the central school that is able to exceed the standards. It is the only school in the Division of Antique that was awarded with three stars in Water, Sanitation, and Hygiene or WASH in school program of the DepEd for SY 2018-2019. It is also the only school with a comfort room caters to pupils belonging to lesbian, gays, bi-sexual, transsexual or LGBT community.

Extent of Adequacy: A Summary

The assessment on the extent of adequacy of educational facilities in DepEd Pandan District showed that most of them were below standards. Notable among facilities that fell below standards is the lack of features that make them ideal. It means that the structure exists but it lacks fixture and equipment that are vital for it to be functional or to serve its purpose. Taking the case of library, media and technology center, though they have this in schools but there is an inadequacy of books, newspapers, periodicals, pamphlets, recordings, tapes, and other materials.

It is also observed that most schools would try to address the lack of adequate facilities by whatever alternative is available while awaiting concrete measures from DepEd and the government especially in the aspect of funds.

The central school the district is the only school meet the standards of adequacy in almost all of educational facilities mentioned. Given that it has the biggest number of teachers and students in the district; it also has the biggest fund allocation to address its needs for educational facilities. It is also the first to receive assistance not just from the local government unit of the Pandan but also from NGOs and CSOs.

Competency of Implementers in Managing Educational Facilities

The competency of implementers are assessed based on the following aspects as indicated in the Educational Facilities Manual of the Department of Education: Management and Administrative Control, Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools, Proper Utilization of Educational Facilities in School, Property Responsibility, Basic Education Information System (BEIS), Financing Educational Facilities, Procurement of Infrastructure Projects, Goods, and Services, Accounting and Recording of School Property, and Disposal of Educational Facilities.

Management and Administrative Control

In this aspect the competency of implementers is assessed based of the following: formulation of policy and standards, provision of professional advices, engagement and involvement of stakeholders.

Table 16 Level of Competency on Management and Administrative Control

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	-	-	-	-	-	-	-	-	-	-	-	-
Fair	-	-	-	-	-	-	-	-	-	-	-	-
Moderate	-	-	1	3.13	3	9.38	6	18.75	1	3.13	11	34.38
High	-	-	5	15.63	12	37.50	2	6.25	-	-	19	59.38
Very High	1	3.13	-	-	-	-	1	3.13	0	-	2	6.25
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Competency of school heads and property custodians on management and administrative control is one of the basic factors influencing the significance of managing education facilities. Data presented above show that more than half of implementers of educational facilities management are competent in carrying out what are required of them as managers and administrators. Policies are formulated, standards are set up and regulations and guidelines governing school facilities are issued by higher office.

The high level of competency of the implementers in this aspect is attributed to the technical assistance provided by the district supervisor. Programs in the regular in-service training on physical facilities management are in effect and the workable Management Information System of the school.

Though there are some who are somewhat competent which can be an indication of the need to improve, no implementer is not competent or even highly not competent. To optimize their capacities as implementers, involvement of school-accredited organizations such as School Governing Council, PTA, and Local School Board are positively felt in management and administrative control of educational facilities.

The results showed that practicing management and administrative control on managing educational facilities is the most significant factor in the competency of the implementers. Hence, it develops learning environment effective for students and teachers.

Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools

In this part, assessment is based on implementers' abilities to meet requirements for establishment, separation of annexes and other related activities for the school.

Table 17 Level of Competency on Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	-	-	2	6.25	3	9.38	1	3.13	-	-	6	18.75
Fair	-	-	2	6.25	5	15.63	5	15.63	-	-	12	37.50
Moderate	1	3.13	2	6.25	7	21.88	2	6.25	1	3.13	13	40.63
High	-	-	-	-	-	-	1	3.13	-	-	1	3.13
Very High	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Knowledge and competencies on Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools are also necessary for an efficient professional performance of the implementers. Although, this has not been practiced most of the time, implementers need to be ahead of the others.

The results showed that less than half of the implementers are competent and the rest are fair and not-competent at all in this aspect of educational facilities management. One major explanation for data above is that schools seldom do above-activities mentioned in this aspect of educational facilities management as it would take years before a school could separate from annexation, converted, and renamed, among others.

One multigrade school implementer is competent because the school had gone through the process of renaming the school using the provision of DECS Memorandum NO. 386, s. 1999. The school was named after its lot donor who was popular and highly regarded because he had reached the level of public achievement and recognition.

Proper Utilization of Educational Facilities in School

In this aspect, implementers were assessed based on their knowledge and understanding on the proper and improper utilization of ground and other facilities of the school other than school activities.

Table 18 Level of Competency on Proper Utilization of Educational Facilities in School

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	-	-	-	-	-	-	-	-	-	-	-	-
Fair	-	-	1	3.13	-	3.13	1	3.13	-	-	3	9.38
Moderate	-	-	3	9.38	6	18.75	4	12.50	1	3.13	14	43.75
High	1	3.13	1	3.13	7	21.88	3	9.38	-	-	12	37.50
Very High	-	-	1	3.13	1	3.13	1	3.13	-	-	3	9.38
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

School heads and property custodians as implementers of in schools are expected to be responsible for the proper utilization of educational facilities in school. There should be no illegal utilization of facilities such as for personal use of and/or squatting on school property or facilities that resulted to illegal act or activity.

The table above show that only few school implementers are not competent in this aspect while majority are moderately competent and competent while there are implementers from three schools who are highly competent. Only few knew that school facilities maybe utilized as polling precincts, venue of religious instruction, community programs and serve as evacuation center provided that all of these must benefit the students and must not interfere regular school activities.

Article 20 of the Revised Penal Code prohibits and penalizes the illegal use of public property. The use of school property for personal convenience is illegal. No squatters shall be allowed on the school site. Likewise, the use of school property for the furtherance of private interest is also considered illegal.

Property Responsibility

In this aspect, the competency of implementers was based on their knowledge of rules on proper care/preservation and safeguarding of educational facilities and proper filing of documents for ready referencing.

Table 19 Level of Competency on Property Responsibility

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	1	3.13	0	-	0	-	0	-	1	3.13
Moderate	1	3.13	2	6.25	4	12.50	4	12.50	1	3.13	12	37.50
High	0	-	3	9.38	11	34.38	5	15.63	0	-	19	59.38
Very High	0	-	0	-	0	-	0	-	0	-	0	-
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Caring/preserving and safeguarding educational facilities are duties of implementers that need to be enforced especially the rules on proper care of educational facilities. Providing perimeter fence along boundaries of the school site with secured entrance and exit gates and undertaking of minor repair and maintenance work and cleanliness and orderliness of classrooms are competencies required of implementers. Also, implementers must be competent in maintaining school records on facilities are mostly observed taking advantage of proper recording and for monitoring purposes.

The findings based on the table above revealed that more than half of implementers in the District of Pandan are somewhat competent while nearly half are competent. It indicates that generally, implementers are responsible for the facilities under their care. An implementer from a school under combination category is not that competent on this aspect.

Basic Education Information System (BEIS)

In this aspect, the implementers' competency on Instructional Room Analysis and Quick Count Module in BEIS are assessed.

Table 20 Level of Competency on Basic Education Information System (BEIS)

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	0	-	1	3.13	0	-	0	-	0	-	1	3.13
Fair	0	-	0	-	0	-	1	3.13	0	-	1	3.13
Moderate	0	-	3	9.38	12	37.50	4	12.50	1	3.13	20	62.50
High	1	3.13	2	6.25	3	9.38	4	12.50	0	-	10	31.25
Very High	0	-	0	-	0	-	0	-	0	-	0	-
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Data above shows more than half are somewhat competent while a considerable number of implementers are competent. The reasons for implementers' competence are the seminars conducted and the DepEd guidelines on LIS and EBEIS (DepEd order No. 032, s. 2018). Though, they somewhat struggled to familiarize themselves with the technical aspects of the program, the fact there are templates and that there is easy access on the net, proved to be helpful to them.

Financing Educational Facilities

Competency in this in this aspect is based on implementers' ability to request/source fund from the government, NGOs, CSOs, among others for educational facilities, and the conduct of activities involving stakeholders.

Table 21 Level of Competency on Financing Educational Facilities

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	4	12.50	1	3.13	1	3.13	0	-	6	18.75
Moderate	0	-	1	3.13	7	21.88	4	12.50	1	3.13	13	40.63
High	0	-	1	3.13	7	21.88	4	12.50	0	-	12	37.50
Very High	1	3.13	0	-	0	-	0	-	0	-	1	3.13
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

The legal basis for the financial support of public elementary and secondary schools, including their educational facilities, is a constitutional mandate which provides that the government shall establish and maintain a complete and adequate system of public education. On the other hand, local funds are also encouraged to appropriate funds for school building repairs and other maintenance requirements.

The table shows that many implementers are either moderately competent or competent in this aspect while implementers from the central school are the very highly competent. It implies that most schools are dependent on the national funds provided in the General Appropriations Act of the national budget. The centrals school, aside from receiving funds from the government, was also able to source fund from local and international agencies and institutions.

The conduct of Brigada Eskwela otherwise known as school maintenance week every start of the school year is where all schools are highly competent. Brigada Eskwela is a voluntary effort whereby parents and local volunteers at the local school level come together for one week before the start of the school year in order to do minor repair and maintenance of school facilities to get the schools ready for the start for the school year. The PTCAs, LGUs, local school boards and the local private sector contribute resources in the form of cash, kind, or time for the maintenance and minor repair of their schools.

The Adopt-A-School Program is also where our schools' implementers are good due to the presence of tangible projects in the school campus but lack of documentation. That is why, it falls on moderate level of competency. This program is an innovative pro-poor program for education was established through R.A. 8525 which aims to create multiple partnership with the business sector, foundations, non- government organizations (NGOs), private schools, civic organizations and individuals to team-up with DepEd towards providing the much-needed assistance and service to public schools.

The result reveals that level of competency of Financing Educational Facilities is moderately competent for most schools except for the central school. The central school has local and foreign-assisted projects such as from the US-AID, Asian Friendship Society, Banco de Oro and many others. It has a numerous voluntary contribution from other funding's collected and expended. In fact, the central school has generated more than a million pesos in cash, kind and labor making the school the second best Brigada Eskwela School implementer for the school year 2018-2019 in the Division of Antique.

Procurement of Infrastructure Projects, Goods, and Services

Competency in this aspect is based on their knowledge and understanding of the Emergency Procurement System for rehabilitation/replacement of school buildings, equipment and fixtures, and the negotiated procurement as presented in Internal Rules and Regulations (IRR) of RA 9184 (Gov't Procurement Reform Act).

Table 22 Level of Competency on Procurement of Infrastructure Projects, Goods, and Services

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	0	-	1	3.13	0	-	0	-	1	3.13
Moderate	0	-	4	12.50	8	25.00	6	18.75	1	3.13	19	59.38
High	1	3.13	2	6.25	6	18.75	3	9.38	0	-	12	37.50
Very High	0	-	0	-	0	-	0	-	0	-	0	-
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

It is notable in the data presented that only one school rated fairly competent in this aspect especially on the lack of knowledge on the emergency procurement system. During the onslaught of Typhoon Yolanda that devastated the whole District of Pandan, the competency of the implementers was put into test especially on the emergency procurement intended to address situations such as damaged classrooms and other facilities. A monograde school for instance was badly hit by Typhoon Yolanda but still observed the proper conduct of bidding and procurement. Although some admitted they missed some process to expedite the process.

More than half are moderately competent while less than half are highly competent. As procurement requires understanding of the technical elements and process, implementers should indeed get serious in this matter. Thus, data indeed suggest that

almost all implementers have knowledge, even just the basics of the procurement of infrastructure projects, goods, and services.

To promote transparency in the procurement of goods, all schools are maintaining a transparency board stating full disclosure of financial and proper observance of RA 9184 otherwise known as Government Procurement Reform Act.

Accounting and Recording of School Property

In this aspect, competency is based on the following: the purchase of property, plant, and equipment; procedures in booking up of school building; and proper inventory and accounting system.

Table 23 Level of Competency on Accounting and Recording of School Property

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	3	9.38	1	3.13	1	3.13	0	-	5	15.63
Moderate	0	-	2	6.25	9	28.13	4	12.50	1	3.13	16	50.00
High	1	3.13	1	3.13	5	15.63	4	12.50	0	-	11	34.38
Very High	0	-	0	-	0	-	0	-	0	-	0	-
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

The result shows that half of school implementers are moderately competent while nearly half are competent in the accounting and recording of school property. Half of the school are moderately competent on matters relating to accounting and inventory of school properties. The office of the school property custodian has basic policies and procedures in the accounting and recording system of the educational facilities but the implementers were not function well due to lack of time and the enormity of task.

The results also revealed that a considerable number of implementers are fairly competent in this matter where they still need to improve while many are moderately to highly competent. The result could be credited to the fact that at every end of the school year, teachers are required to pass the inventory of educational facilities in their custody and supplies and materials are recorded as inventory account and maintained in the general ledger on current basis based on standards.

Among schools that have high level of competency on Accounting and Recording of School Property, the only central school is highly notable in its continuous improvement project entitled, "My Property, My Accountability". It is an offline system that tracks the inventory of educational facilities, considering the size, number of teachers and students in school. The project has been awarded as the best continuous improvement project in the division, school year 2017-2018.

Disposal of Educational Facilities

Implementers' competencies in this aspect are based on their knowledge of general procedures in disposal of educational facilities.

Table 24 Level of Competency on Disposal of Educational Facilities

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Competent	0	-	1	3.13	1	3.13	0	-	0	-	2	6.25
Fair	0	-	3	9.38	3	9.38	2	6.25	0	-	8	25.00
Moderate	0	-	2	6.25	9	28.13	6	18.75	1	3.13	18	56.25
High	1	3.13	0	-	2	6.25	1	3.13	0	-	4	12.50
Very High	0	-	0	-	0	-	0	-	0	-	0	-
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Findings show that more than half of implementers are moderately competent on the aspect of the disposal of educational facilities. The implementers find hard in determining factors, inspection and disposal of the of unserviceable property. Condemnable Textbooks and teachers' manuals that bite by termites, obsolete and unserviceable are still in the bookshelves consuming space. That is why, most of the implementers fell below the level of competency.

Some of implementers from central, monograde and multigrade schools are moderately competent in this aspect. A central school for instance had gone through the process of disposal last June 2018. It observes proper modes, listing and documentation of disposal of unserviceable books and manuals. The mode of disposal is through the condemnation/destruction because the books are infected with termites which may cause other books in good condition. The destruction was done in the presence of the disposal committee, representative from the division supply office and from the Commission on Audit.

Membership of Disposal committee as provided in EO No. 309 and knowledge on the general procedures and guidelines on disposal fell below the level of competency.

Level of Competency: A summary

The implementers need to raise their competence in technological and technical aspects. Data presented showed that implementers are not competent in the aspect of establishment, separation of annexes, integration, conversion and naming/renaming of public elementary schools. The main reason for this is that these activities are seldom done. On the other hand, most implementers are competent in the aspect of management and administrative control. Worth mentioning also is their competence in aspects of proper utilization of resources and property responsibility.

Level of Effectiveness of the Management of Educational Facilities

This part presents the level of effectiveness of the management of educational facilities in schools in Pandan District. The level of effectiveness per school category is assessed based on the following aspects as indicated in the Educational Facilities Manual of the Department of Education: Management and Administrative Control, Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools, Proper Utilization of Educational Facilities in School, Property Responsibility, Basic Education Information System (BEIS), Financing Educational Facilities, Procurement of Infrastructure Projects, Goods, and Services, Accounting and Recording of School Property, and Disposal of Educational Facilities.

Management and Administrative Control

The level of effectiveness in this aspect is based on the following: formulation of policy and standards, provision of professional advices, engagement and involvement of stakeholders.

Table 25 Effectiveness of Managing Educational Facilities on Management and Administrative Control

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	-	-	-	-	-	-	-	-	-	-	-	-
Fair	-	-	-	-	-	-	-	-	-	-	-	-
Moderate	-	-	1	3.13	7	21.88	6	18.75	1	3.13	15	46.88
High	1	3.13	5	15.63	7	21.88	3	9.38	-	-	16	50.00
Very High	-	-	-	-	1	3.13	-	-	-	-	1	3.13
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Findings show that half of schools are highly effective in the management of educational facilities on management and administrative control, while one school is very high effective and the rest are somewhat effective.

The effectiveness of the school relay on the effectiveness of the implementers, thus it appears on the result of the survey that half of schools are highly effective in the management of educational facilities on management and administrative control. The other half is moderately effective and a monograde school is very high level of effectiveness.

The effectiveness of the school on the management and administrative control is one of the basic factors influencing the significance of managing education facilities. In the school, policies are formulated, standards are set up and regulations and guidelines governing school facilities are issued by higher office.

The level of effectiveness of the school also reveals because of the technical assistance provided by the district supervisor. Programs in the regular in-service training on physical facilities management are evident and the workable Management Information System of the school. Schools optimize their capacities involving of the school accredited organizations such as School Governing council, PTA and Local School Board therefore, effectiveness are observed in management and administrative control of educational facilities.

The figures are indicative that managers and administrators are doing what they can for the school. Thus, it develops learning environment effective for students and teachers.

Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools

In this aspect, meeting the requirements for establishment, separation of annexes and other related activities for the school is the basis for the level effectiveness.

Table 26 Effectiveness of Managing Educational Facilities on Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	2	6.25	3	9.38	0	-	0	-	5	15.63
Fair	0	-	3	9.38	4	12.50	6	18.75	0	-	13	40.63
Moderate	0	-	0	-	7	21.88	2	6.25	1	3.13	10	31.25
High	1	3.13	1	3.13	1	3.13	1	3.13	0	-	4	12.50
Very High	0	-	0	-	0	-	0	-	0	-	0	-
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

The table shows that in this aspect of educational facilities management, most of the schools have less knowledge in this matter. The effectiveness of the school on the Establishment, Separation of Annexes, Integration, Conversion and Naming/Renaming of Public Elementary Schools are insufficient. Although, this has not been practiced most of the time, the school should be aware in case the needs may arise in the future.

The results showed that a combination and monograde school is not effective at all in this aspect of educational facilities management. It was explaining in the competency of implementers that the schools seldom do the activities mentioned in this aspect of educational facilities management. It would take years before a school could separate from annexation, converted, and renamed, among others.

There are at least four schools which are highly effective because the school have gone through the renaming of the school using the provision of DECS Memorandum NO. 386, s. 1999. The school was named before the lot donor of the school which have reach to the level of public achievement and recognition.

Proper Utilization of Educational Facilities in School

In this aspect, the levels of effectiveness of schools are based on the proper and improper utilization of ground and other facilities of the school other than school activities.

Table 27 Effectiveness of Managing Educational Facilities on Proper Utilization of Educational Facilities in School

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	0	-	0	-	0	-	0	-	0	-
Moderate	0	-	2	6.25	4	12.50	4	12.50	1	3.13	11	34.38
High	1	3.13	4	12.50	10	31.25	5	15.63	0	-	20	62.50
Very High	0	-	0	-	1	3.13	0	-	0	-	1	3.13
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

In this aspect, most of the schools in the district effectively utilize their educational facilities. None is fair effective and not effective in the utilization of facilities. This implies that the schools in the District of Pandan utilized properly the educational facilities in school. There was no illegal utilization such as for personal use of and or squatting on school property or facilities that resulted to illegal act or activity.

Knowing that majority of the schools showed effectiveness in this aspect, there are gatherings and programs that benefit the students and the school. Most of the time the school facilities are utilized as polling precincts, venue of religious instruction, community programs and serve as evacuation center.

The use of school property for the personal convenience is illegal. This is stipulated on Article 20 of the Revised Penal Code prohibits and penalizes the illegal use of public property. No squatters shall be allowed on the school site. Likewise, the use of school property for the furtherance of private interest is also considered illegal.

Property Responsibility

The levels of effectiveness of schools are based on the enforcement of rules on proper care/preservation and safeguarding of educational facilities and proper filing of documents for ready referencing.

Table 28 Effectiveness of Managing Educational Facilities on Property Responsibility

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	0	-	0	-	0	-	0	-	0	-
Moderate	0	-	1	3.13	5	15.63	4	12.50	1	3.13	11	34.38
High	1	3.13	4	12.50	9	28.13	3	9.38	0	-	17	53.13
Very High	0	-	1	3.13	1	3.13	2	6.25	0	-	4	12.50
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

More than half of the schools are highly effective while less than half are moderately effective in enforcing proper care/preservation and safeguarding of educational facilities and in the filing of pertinent documents on facilities for ready referencing. Four are highly effective.

Proper care of educational facilities is the outmost concern of the school to Care/Preservation and Safeguarding of our schools. That is why, in whatever capacities, the school holds an income generating programs to finance projects like the construction of a perimeter fence along boundaries of the school because such spending is not allowed under the maintenance and other operating expenses of the school. The schools are highly effective in securing entrance and exit gates, undertaking of minor repair and maintenance work and cleanliness and orderliness of the classrooms and the campus.

The findings also revealed that four schools are very high effective in this aspect. The schools are also effective in maintaining school records on facilities such that of school site development plans, records of donations, records of donated projects and etc. Such documents are placed in separate folders under the Physical Facilities management information system of the school.

In general, data exhibited that schools are indicative of the schools' desire and effort to take good care of their educational facilities.

Basic Education Information System (BEIS)

In this aspect, incorporation of Instructional Room Analysis with a color-coding system based on the rainbow spectrum in BEIS Quick Counts Module and School Furniture Analysis representing seating provision in BEIS Quick Counts Module are the bases of the level of effectiveness.

Table 29 Effectiveness of Managing Educational Facilities on Basic Education Information System (BEIS)

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	1	3.13	0	-	0	-	0	-	1	3.13
Fair	0	-	0	-	1	3.13	0	-	0	-	1	3.13
Moderate	0	-	1	3.13	5	15.63	3	9.38	1	3.13	10	31.25
High	0	-	3	9.38	8	25.00	4	12.50	0	-	15	46.88
Very High	1	3.13	1	3.13	1	3.13	2	6.25	0	-	5	15.63
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Most of schools are effective in this aspect. There are five schools who are highly effective and ten somewhat effective. One school under combination category is highly not effective.

Financing Educational Facilities

In this aspect, the levels of effectiveness are based on school's effectiveness in requesting/sourcing funds from the government, NGOs, CSOs, among others for educational facilities, and the conduct of activities involving stakeholders.

Table 30 Effectiveness of Managing Educational Facilities on Financing Educational Facilities

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	4	12.50	1	3.13	1	3.13	0	-	6	18.75
Moderate	0	-	1	3.13	7	21.88	4	12.50	1	3.13	13	40.62
High	0	-	1	3.13	7	21.88	4	12.50	0	-	12	37.50
Very High	1	3.13	0	-	0	-	0	-	0	-	1	3.13
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

The legal basis for the financial support of public elementary and secondary schools, including their educational facilities, is a constitutional mandate which provides that the Government shall establish and maintain a complete and adequate system of public education. On the other hand, Local funds are also encouraged to appropriate funds for school building repairs and other maintenance requirements.

Most of the schools are either moderate effective or moderately competence in the aspect of financing educational institution. There are six schools which are fairly effective while the only central school in the district is also the only school that is very highly effective.

It was found out in the competency of the implementers that the conduct of Brigada Eskwela otherwise known as school maintenance week every start of the school year is where all schools are highly effective. Brigada Eskwela is a voluntary effort whereby parents and local volunteers at the local school level come together for one week before the start of the school year in order to do minor repair and maintenance of school facilities to get the schools ready for the start for the school year. The PTCAs, LGUs, local school boards and the local private sector may contribute resources in the form of cash, kind, or time for the maintenance and minor repair of their schools.

The Adopt-A-School Program is also where our schools' implementers are good due to the presence of tangible projects in the school campus but lack of documentation. That is why, it falls on moderate level of competency. This program is an innovative pro-poor program for education was established through R.A. 8525 which aims to create multiple partnership with the business sector, foundations, non-government organizations (NGOs), private schools, civic organizations and individuals to team-up with DepEd towards providing the much-needed assistance and service to public schools.

The result reveals that level of effectiveness of Financing Educational Facilities is moderately and high effective for most schools except for a central school which is very high effective. The central school has a local and foreign-assisted project such as from the US-AID, Asian Friendship Society, Banco de Oro and many others. It has a numerous voluntary contribution from

other funding's collected and expended. In fact, the central school has generated more than a million pesos in cash, kind and labor making the school the second best Brigada Eskwela School implementer for the school year 2018-2019 in the Division of Antique.

Procurement of Infrastructure Projects, Goods, and Services

The levels of effectiveness are based on the following: proper observance of Emergency Procurement System for Rehabilitation/Replacement of School Buildings, Equipment and Fixtures Negotiated; proper procurement as presented in Internal Rules and Regulations (IRR) of RA 9184 (Gov't Procurement Reform Act) especially observance and conduct of bidding process for projects and procurement of goods.

Table 31 Effectiveness of Managing Educational Facilities on Procurement of Infrastructure Projects, Goods, and Services

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	1	3.13	0	-	1	3.13	0	-	2	6.25
Moderate	0	-	1	3.13	6	18.75	4	12.50	1	3.13	12	37.50
High	0	-	4	12.50	8	25.00	3	9.38	0	-	15	46.88
Very High	1	3.13	0	-	1	3.13	1	3.13	0	-	3	9.38
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

Slightly better than in the aspect of financing educational facilities, most of schools are moderately effective or effective in another technical aspect of educational facilities management, procurement. Three schools are highly effective while two are not effective.

As procurement requires understanding of the technical elements and process, the schools should indeed get serious in this matter. Violation of the process is punishable under the law and administratively liable. Thus, data indeed prevails that almost all of the schools have knowledge, even just the basics of the procurement of infrastructure projects, goods, and services. To promote transparency in the procurement of goods, all schools are maintaining a transparency board stating full disclosure of financial and proper observance of RA 9184 otherwise known as Government Procurement Reform Act.

Accounting and Recording of School Property

In this aspect, schools are assessed on their levels of effectiveness based on their purchase/procurement of property, plant and equipment and proper inventory and accounting system (system of monitoring, controlling and recording of acquisition, and disposal of property and inventory)

Table 32 Effectiveness of Managing Educational Facilities on Accounting and Recording of School Property

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	0	-	0	-	0	-	0	-	0	-
Fair	0	-	1	3.13	0	-	1	3.13	0	-	2	6.25
Moderate	0	-	2	6.25	5	15.63	5	15.63	1	3.13	13	40.63
High	0	-	2	6.25	10	31.25	2	6.25	0	-	14	43.75
Very High	1	3.13	1	3.13	0	-	1	3.13	0	-	3	9.38
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

In accounting and recording school property, most schools are either moderately effective or highly effective as shown by the table above. Only two schools are not effective in this aspect. Thus, this number tells us that most schools are somewhat with pertains to accounting and inventory of school properties.

The office of the school property custodian has the basic policies and procedures in the accounting and recording system of the educational facilities. Every end of the school year, teachers are required to pass the inventory of educational facilities in their custody. Based on standards, supplies and materials shall be recorded as inventory account, maintained in the general ledger on current basis.

The result also reveals that a central school, a combination and multigrade school is very high effective in Recording of School Property. The central school has a continuous improvement project "My Property, My Accountability". It is an offline system that track the inventory of educational facilities, considering the size, number of teachers and students in school. The project has been awarded as the best continuous improvement project in the division, school year 2017-2018.

Disposal of Educational Facilities

The level of effectiveness is based on schools' observance of proper mode of disposal/divestment of educational facilities including inspection and appraisal and other related factors.

Table 33 Effectiveness of Managing Educational Facilities on Disposal of Educational Facilities

Level	Central		Combination		Monograde		Multi Grade		Primary		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Not Effective	0	-	2	6.25	1	3.13	0	-	0	-	3	9.38
Fair	0	-	1	3.13	0	-	1	3.13	0	-	2	6.25
Moderate	0	-	2	6.25	7	21.88	6	18.75	1	3.13	16	50.00
High	0	-	1	3.13	7	21.88	2	6.25	0	-	10	31.25
Very High	1	3.13	0	-	0	-	0	-	0	-	1	3.13
Total	1	3.13	6	18.75	15	46.88	9	28.13	1	3.13	32	100.00

In disposing educational facilities, only one school is highly effective in this aspect. Most of the schools are either moderately or highly effective. The schools are moderately effective in determining factors, inspection and disposal of the of unserviceable property. Condemnable Textbooks and teachers’ manuals that bite by termites, obsolete and unserviceable are still in the bookshelves consuming space but still in custody.

A central school is very highly effective in this aspect. A central school for instance had gone through the process of disposal last June 2018. It observes proper modes, listing and documentation of disposal of unserviceable books and manuals. The mode of disposal is through the condemnation/destruction because the books are infected with termites which may cause other books in good condition. The destruction was done in the presence of the disposal committee, representative from the division supply office and from the Commission on Audit.

Level of Effectiveness: A summary

Among the aspects of educational facilities managements, it is the establishment, separation of annexes, integration, conversion and naming/renaming of public elementary schools that has different results as most schools are not effective in that aspect.

It is in aspects of proper utilization of property and property responsibility most schools are effective, an indication that schools or the whole Pandan district recognized the need to take care of educational facilities.

It is notable that the central school that is most consistent among all schools where it is usually effective in many aspects of educational facilities management. It is also the school that has many “highly effective” ratings in many aspects.

Pandan District in general can be characterized as effective in the management of educational facilities though there are aspects that need improvement.

Predictors of Effective Management of Educational Facilities

The study identified eight factors that were observed to have influence on the school heads effectives in managing educational facilities. The eight predictors were discussed in the previous chapters. The eight factors were all correlated with the management of the school heads, meaning that the higher the scores in the eight factors, the better the management of the educational facilities. Hence to find out which factors have greater contribution or are predictors of management, the multiple regression was applied. However in the first level of regression only three factors were identified to be predictors of management of educational facilities as revealed in table in Property responsibility, Basic education information system and Disposal of educational facilities.

The findings revealed that school heads take responsibility of the educational facilities in their schools, who is aware of the facts and information about their schools and knew when and where to disposed educational facilities that are not functional or useful, and are aware of the distribution of these facilities as books, electronic gadgets or instructional materials were found to be better managers of their school educational facilities. They were effective managers in terms of these three functions of school heads.

Moreover, the beta values would mean that for every increase of one unit of the three factors, the value of the management effectives will increase by 0.338 for property responsibility, 0.295 for basic education information system and 0.437 for disposal of educational facilities. Thus the r2 of 0.832 would show that 83.2 percent of the variance of the effectiveness is contributed by the variance of the eight predictors. Hence the null hypothesis of no predictors was rejected. At most there were three main predictors of the management effectiveness of the school heads regarding educational facilities.

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	1.716	.550		3.118	.005
Establishment, separation of annexes, integration, conversion.	.247	.386	.346	.641	.528
Proper utilization of educational facilities in school	.111	.159	.153	.700	.491
Property responsibility;	.339	.165	.329	2.053	.050
Basic education information system (BEIS);	.295	.170	.334	-1.731	.047
Financing educational facilities;	.121	.329	.167	.368	.716
Procurement of infrastructure projects, goods, and services;	.067	.239	.063	.279	.783
Accounting and recording of school property; and	-.312	.241	-.391	-1.296	.208
Disposal of educational facilities	.437	.147	.573	2.979	.007

Table 34 Multiple regression of the eight factors to Management of educational facilities

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.912 ^a	.832	.773	.27680	.832	14.205	8	23	.000

Table 35. Predictors: (Constant), Establishment, separation of annexes, integration, conversion, Proper utilization of educational facilities in school, Property responsibility; Basic education information system (BEIS); Financing educational facilities; Procurement of infrastructure projects, goods, and services; Accounting and recording of school property; and Disposal of educational facilities

Since all the eight factors correlated with the effectiveness on management, so the study went further to find out which factors have indirect influence on management effectiveness. So to answer the query, path analysis was done to the rest of the factors. The resultant path model is presented in Figure __. The findings shows that there were three factors with direct effect and three factors have indirect effects. The values from one factor to the other are the proportion of contribution to the variance of the dependent factor.

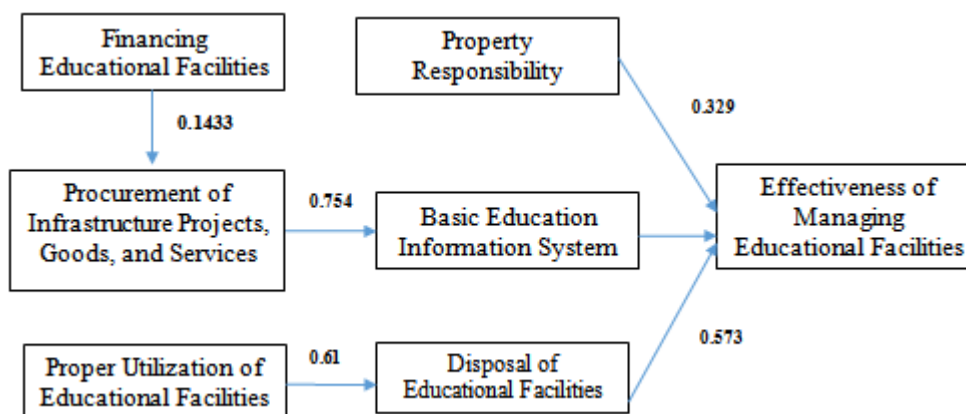


Figure 2 Path Analysis of the Predictors of the Effective Management of Educational Facilities

Basic education has direct effect on management effectiveness. However, it could only have greater effect if the school head has good procurement of the goods and services. This means, procurement is well planned and goods and services are readily released or obtained by the users or the ones requesting for such materials and goods. Again procurement was dependent on a healthy financial management of the school.

Disposal of educational facilities has also direct effect on the effective management of school facilities. However, disposal can only be well managed when the school head has proper utilization of the educational facilities. Such utilization will be the basis for decisions regarding disposal of unuseful materials or non-functional gadgets and facilities.

The schema would mean that effective management of educational facilities needs the knowledge and awareness of the school heads on the different support materials for the school. Furthermore, regular monitoring of these materials is necessary for future decisions and most importantly how to procure these materials so it would benefit the teachers, the students and the school system in general.

Challenges Experienced in Managing Educational Facilities

Managing Educational Facilities are central to a quality educational experience, yet it faces a lot of challenges in the implementation. Bringing together to achieve the efficiency and effectiveness of the implementers is always a big challenge for school facilities management. Supporting the academic achievement of the learners and coping with the administrative processes of school facilities management is not an easy to achieve for it has challenges experienced by the implementers.

Insufficient Fund and Facilities

One of the perennial problems that pose a great deal of challenge to property custodians and school administrators is insufficient funds for purchase of facilities and equipment. School facilities are services and amenities in school that provide educational activities for students. These facilities provide students a place to learn that is under the implementation of school heads.

The lack facilities to cater to the needs of pupils and teachers are mentioned by respondents. And though there are facilities, lack of funds for their repair (specific examples mentioned were termites that destroy books and wood component of school building and pupils who vandalized school properties) is another challenge faced by schools in the District of Pandan.

This challenge implies that insufficient facilities in public schools outlines that students are not receiving their rights of having a sufficiently available and well-maintained school facilities. Indications of having these poor facilities are non-working or

poorly maintained public comfort rooms, lack of classrooms, overcrowding in classrooms, poor ventilation, unsanitary and crowded canteens and more. These challenging scenario seems to loom in the distance as there was a decrease in the Basic Education Facilities Fund (BEFF) allocation from 105.46 billion in 2018 to 34.74 billion in the proposed 2019 General Appropriations Act (www.dbm.gov.ph)

Technical and Technological Problems

The emerging trend in Information and Communication Technology (ICT) is also the emerging trend in education today especially in instruction and learning. That is why, the Department of Education (DepEd) is addressing technology gaps among teachers and students. Learners today are all digital natives, while teachers are digital immigrants who were not born into the digital world but have to adopt various aspects of the new era.

It is within this context that most teachers in the District of Pandan has been experiencing the challenges in terms of closing the technical and technological gaps in ICT. Another challenge identified is on the poor quality of computers delivered through the DepEd Computerization program as they easily broke down and became damaged. This situation was highlighted by monograde and multi-grade schools in the district such as Tingib, Badiangan, San Joaquin and Candari. Laptops of said schools from DepEd were easily damaged and poor quality was considered as the main reason. Technical problems led to disrupted operations in school e.g. the submissions of survey reports for school facilities were delayed due to slow internet connection. Such case happened in Duyong Elementary School, a multi-grade school.

This challenge implies that teachers should adapt to technological advances in education to allow maximum learning and be at the pace of the 21st century learners. School heads should create a transformational and enabling environment for the learners and teachers. Furthermore, school heads need to maximize the benefits of Information and Communications Technology (ICT) through appropriate resource management.

Enormity of Task

The Department of Education today is identifying areas of improvement and is setting the direction for evidence-based decisions to assist in the discharge of quality basic education. This has resulted to the standardization of format of reports, updating and reduction of data needed in existing school forms, maximization of available technology and information system. Amid the development of the curriculum and educational facilities is the concern of school implementers on the *enormity of tasks*. Beyond teaching duties, teachers are assigned to perform administrative tasks and even serve as guidance counselors, clerks, librarians, and custodians.

The central school is the only school in the District of Pandan. One main challenge identified in the said school is that it is large enough to be under the custody of a full-time teacher. The researcher, being the property custodian of PCS, found the enormous task of managing properties of the school a challenging one. Managing various educational properties would be efficient if there is a property custodian whose main task is focus on facilities management and not having other task such as teaching. Or he/she has a teaching load but limited.

The implication of this challenge is that DepEd should look into initiating more platforms where teachers and curriculum experts to consider data sharing instead of sharing separate forms to further reduce the enormity of task. Furthermore, the department should also streamline the process, minimizing the duplication of data to lessen the efforts of teachers on work preparations.

Limited Knowledge

Knowledge is one of the most recent management disciplines that make or break the competency and effectiveness of the implementers. One of the problems in facilities management is the limited degree of knowledge. It is important that practitioners should ensure that they become proficient by taking advantage of the practice of facilities management in their respective school.

Limited knowledge on facilities management was mentioned by some respondents as a limiting factor to perform competently as property custodians. Their limited knowledge on inspection and appraisal of properties posed a challenge to them. Also, limited knowledge on proper filing system was mentioned as a challenge as there were cases of documents being lost.

The said challenge hinders implementers to perform productively in the school. This leads to poor delivery of basic services to the stakeholders of the school. This is a big problem for a department that has been trying its best to serve its stakeholders. Therefore, there is a need to redefine the orientation about facilities management not just as a competency but also a knowledge-based endeavor.

Limited Time

Effective facilities management entails the management of people, process, and time. Time is where most of the implementers are having a hard time. DepEd Memorandum No. 291, s. 2008 provides that public school teachers shall render at most six (6) hours of actual classroom teaching, except when undertaking academic activities that require presence outside of the school premises. This was the reason why all property custodians have full teaching load which in effect proved to be a limiting factor in their utmost performance of their duties as educational facilities managers. Some of them suggested that they should be given lesser teaching load so that they could also focus of effectively managing their respective schools' educational facilities.

This challenge implies that implementers have limited time in delivering services to its stakeholders. Better classroom instruction is vital for the development of the learners, thus, implementers relegated facilities management to the sidelines especially in schools which have no full-time school head. Though they have their training to address this challenge, still, limited time to perform their duties effectively still prove to be a hindrance.

Inability by some to cope with challenges

The Philippine public-school education has gone through many changes and development over the years. The continuous process made great impacts in the lives of millions of stakeholders. Relatively, the changes have given us advantages but on the other hand, it causes the school implementers to deal with challenges it brought.

In dealing with challenges, some respondents said that they immediately acted on situations that could be addressed immediately such as repairs of facilities, vandalism of school properties, etc. The cooperation of external stakeholders such as the parents and the community in general helped address other school concerns. But considering the various context and situations in their respective schools, some really find it hard to cope with challenges that have continuously affected learning and instructions. This was because some challenges were brought by circumstances not within their control, but they were forced to address them such as insufficient funds.

In general, the roles played by property custodians and school heads as implementers of educational facilities management and various stakeholders are indispensable to provide solutions, though sometimes palliatives, but were able to provide immediate relief and offered a tolerable situation.

Proposed Educational Facilities Management Model

Introduction: The effective management of educational facilities management should be inclusive and holistic. It is inclusive in the sense that all stakeholders should get engaged and involved, and holistic in the sense that all factors needed for effective management of educational facilities should be inter-connected. As educational facilities have very important role in attaining effective instruction and in providing a conducive learning atmosphere in school, what makes an effective educational facilities management should be considered.

Rationale: As this study presented the inadequacies of educational facilities of schools in DepEd Pandan District and that there is a need to improve the management of these facilities, thus, it is imperative that there is a need to first increase the level of competency by implementers. Effective management of educational facilities needs the knowledge and awareness of the school heads on the different support materials for the school and entails regular monitoring of these materials is necessary and also the procurement of these materials for the benefit of teachers, students and the school system in general.

Increasing the competency of implementers especially in their knowledge and awareness can be done through capacitating them constantly in all aspects of educational facilities managements. Though there are seminars conducted by the Department of Education related to educational facilities management, it should be comprehensive and regular. Implementers should learn the basics of facilities management, the related policies and guidelines, etc. Part of capacitation is sharing of experiences such as challenges experienced and best practices so that implementers can learn and adapt strategies they will learn from others if they deemed applicable.

An enabling environment for property custodians would be of great help in bringing out the best in them. By limiting their teaching load, they could devote more time in performing their task as facilities managers. An appropriate reward system for best practices in facilities management can be established. This would create a productive competition among schools which would further encourage stakeholders to do their best.

Various stakeholders should be engaged to help in their own capacity in the effective management of educational facilities. Barangay Local Government Units (BLGUs) aside from a source of funding can help in the institutionalization of initiatives and measures related to educational facilities. The Parents Teachers Classroom Associations (PTCA) can provide support to schools not just through tangible projects (as this is a common practice in Pandan) but also awareness campaign for pupils to help in taking care of educational facilities. The pupils through their respective student councils (SC) can conduct similar project. Civil society organizations (CSOs) and non-government organizations (NGOs) can also be engaged as linkage or network.

Institutionalization especially in the local is crucial in the sustainability of educational facilities. If policies are in place, even if property custodians and principals will be replaced, there will still be the continuance of programs and projects as stated in policies. Institutionalization may also include regular funding for schools aside LGU assistance through the local school board.

Funding is very important in ensuring an effective management of educational facilities. Having adequate educational facilities, maintaining and upgrading them requires funding. By having adequate and sustainable facilities, the competence of implementers and managers can be improved as they would be handling functional and operational facilities.

All the aforementioned would not materialize if there is thorough planning. If the DepEd Pandan District plan to attain an effective management of educational facilities that can be sustained, it is important to have an inclusive and thorough planning. And it should involve various stakeholders. As Abraham Lincoln said, "Give me six hours to cut a tree and I will devote four hours to sharpen the ax."

The model is called DSA Educational Facilities Management Model. D is for doable as all proposed activities can be done within a specified period. S is for sustainable because activities should be sustained to create impact. A is for affirmative action where an enabling environment and opportunities is provided for stakeholders to do their share in addressing the challenges in the management of educational facilities.

DSA Educational Facilities Management Model

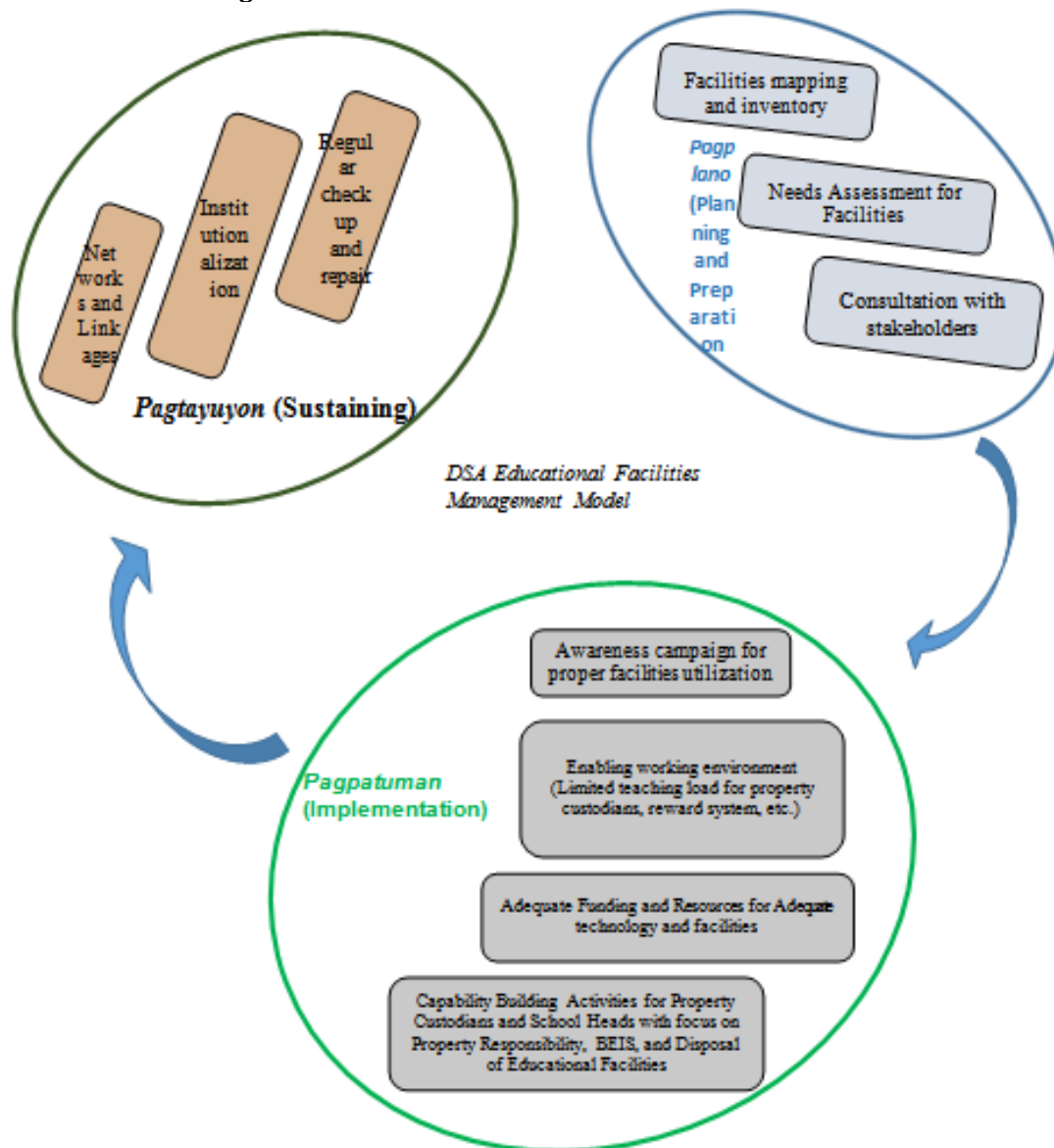


Figure 3. DSA Educational Facilities Management Model

General Objective: This model aims to address challenges in educational facilities management by offering an inclusive and holistic measures.

Sustainability Management Program

Activities	Persons Involved	Resource Needed	Time Frame	Funding Source	Expected Output(s)
Pagplano (Planning/Preparatory)					
Inventory and mapping of facilities	Property Custodian;	Documents related to the activity	2 days	None	Complete inventory of facilities
Needs Assessment on Educational Facilities	Property Custodian; School Head; Pupil representative PTCA; Committee on Facilities (if there is none, the school can create)	Venue; snacks; manila paper; pentel pen; projector	1 day	MOOE or PTCA fund	Comprehensive needs assessment

Mapping of external stakeholders	Property custodian	Directory of stakeholders	1 week	None	Complete map of stakeholders
Consultation meeting with external stakeholders	Property custodian; school head; stakeholders	Venue; snacks; sound system; prepared needs assessment on educational facilities	2 weeks after mapping of stakeholder	School's MOOE	Enhanced needs assessment; Agreement on plans
Pagpatuman (Implementation)					
(1) IEC Campaign on caring for facilities (These are just few examples of activities that can be done)	Property custodian; school head; PTA; president of pupil government	IEC materials; funds;	IEC can be done in just one day though poster can remain posted for one school year; repairs will be done if needed	MOOE	Awareness among pupils of the need to care for facilities
Enabling Working Environment (limited teaching load for property custodians, reward system)	District supervisor and school head	Guidelines; funds	Permanent	DepEd, Provincial government (if possible)	Productive property custodians; healthy competition among schools
Capability building with focus on Property Responsibility, BEIS, and Disposal of Educational Facilities	Property custodian; school head; PTA; Committee on Facilities (if there is none, the school can create)	materials; funds	Once every 6 months	None	Competent Implementers
Resolution requesting for fund	Property custodian; school head; PTCA	resolution	1 month	None	resolutions received by intended person or agency
Repair of facilities (school should ensure that MOOE has budget intended for repairs)	Property custodian; school head; PTCA	Laborer	Only if needed	MOOE	repaired facilities
Fund allocation for facilities	LGU, NGOs, CSOs, LSB	Letters, resolutions, etc.	One school year	Target agency/individual	Commitment from funders; Materialization of pledges
Donation of Facilities from external	LGU, NGOs, CSOs, alumni of the school	Letters, resolutions, etc.	One school year	Target agency/individual	Commitment from donors; Materialization of pledges
Pagpadayon (Sustaining)					
Regular checkup of facilities	Property custodian; expert in facilities	Checklist of standards for each facilities	Twice a month		Complete results of checkup.
Institutionalization of support and other facilities-related matter	LGU, NGOs, CSOs, LSB	MoU/MoA, resolutions, agreements, etc.	One month	None	Signing of MoA; resolution signed by intended party
Establishment and strengthening of network and linkages	LGU, NGOs, CSOs, LSB	MoU/MoA resolutions, agreements, etc.	One month	None	Signing of MoA; resolution signed all parties

5. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter captures the gist of the whole study. It contains the summary of the findings including results, the conclusions derived from the results, and the recommendations in terms of practice, policy, and research.

Summary of the Study

This study assessed which factors predicts the effectiveness in managing educational facilities among principals and property custodians in the public elementary schools in Pandan, Antique for the year 2018-2019. Sixty-four respondents were surveyed for this study utilizing a survey questionnaire. The respondents represented 32 schools in Pandan District where one is a central school, six are combination, 15 are monograde, 9 are multi-grade, and 1 is a primary school. Using a descriptive correlational design, the results assessed the effectiveness of the management of educational facilities in the said study locale.

Survey results revealed that educational facilities in DepEd Pandan District were mostly below standards. Notable among facilities that fell below standards is the lack of features that make them ideal. It means that the structure exists but it lacks fixture and equipment that are vital for it to be functional or to serve its purpose. It is also observed that most schools would try to address the lack of adequate facilities by whatever alternative is available while awaiting concrete measures from the DepEd and the government specifically in fund allocation. The central school in the district is the only school that meet the standards of adequacy in almost all of educational facilities mentioned.

In terms of competency, implementers are generally competent in many aspects of educational facilities management where it was more evident in three aspects: management and administrative control, proper utilization of resources, and property responsibility. There is a need for them to improve in the technological and technical aspects and be more aware in the aspect of establishment, separation of annexes, integration, conversion, and naming/renaming of public elementary schools.

In terms of the effectiveness of schools in educational facilities management, data presented showed that most of them are generally effective. Just like in competency, most schools are just fairly effective in the aspect of establishment, separation of annexes, integration, conversion, and naming/renaming of public elementary schools. On the other hand, schools were highly effective in the aspects of property responsibility and proper utilization of educational facilities.

By applying multiple regressions, it was found out that all factors correlated with the effectiveness on management. Using path analysis, three factors (property responsibility, basic education information system, disposal of educational facilities) were found out to have direct influences while three factors (financing educational facilities, procurement of infrastructure projects, goods, and services, proper utilization of educational facilities) have indirect influences on management effectiveness.

The challenges experienced by the implementers in managing educational facilities include the following: insufficient funds and facilities, technical and technological

problems, enormity of tasks, limited knowledge, and limited time. These and other things posed a great challenge to implementers in effectively managing educational facilities in their respective schools. Despite these challenges, they addressed them in their own ways.

Conclusions

It could be observed the most schools in Pandan District have inadequate educational facilities indicative of the need to address this situation. This was further confirmed by challenges identified by respondents where the inadequacies proved to be a challenge to their role as administrators and managers of educational facilities.

As the findings revealed that property custodians and school heads who are aware of the facts and information about their schools, and knew when and where to disposed educational facilities that are not functional or useful, and are aware of the distribution of these facilities as books, electronic gadgets or instructional materials were found to be better managers of their school educational facilities. They were effective managers in terms of these three functions. This suggests that implementers could have done better in the management of educational facilities if only they were competent enough in various aspects. Therefore, increasing the competencies of implementers in three aspect mentioned that have direct influence on management is a very significant factor in attaining effective educational facilities managements in the district.

Challenges on educational facilities management abounds in Pandan District and it appeared that the cause of these challenges were mostly not within the control of implementers. Thus, palliatives to address identified challenges were made by implementers. But though they might provide relief or temporary solution, the whole situation warrants a solution that would produce a long-term or sustainable outcome.

A doable, sustainable, and affirmative action model to improve the effectiveness of educational facilities management in Pandan District is proposed. In the proposed model, activities follow a timetable where they can be sustained to create impact. It could be possible by providing an enabling environment through proactive opportunities for stakeholders to do their share in addressing the challenges in the management of educational facilities.

Recommendations

Based on the findings of this study, the following are hereby recommended:

Practice

Schools in Pandan District should conduct constant activities where there are exchanges of discourse and sharing of best practices in effective educational facilities management starting with property responsibility, basic education information system, and disposal of educational facilities as these have direct influences on management effectiveness. As study results showed that schools were able to address, in their own ways, challenges that need immediate attention by involving various stakeholders, there is therefore a need to empower stakeholders by strengthening their involvement in educational facilities management.

Policy

The Department of Education should see to it, through official memorandum, that a regular conduct of seminars on the basics of educational facilities management at the local level. Other capacity building measures be implemented to help in improving the competency of implementers. An enabling environment should also be provided for property custodians to eradicate limiting factors that hinder their full performance of their duties e.g. giving them limited teaching load so as to provide them more time to perform their function as educational facilities manager. The department can also institutionalize awards for best in educational facilities management in the district, provincial, and regional levels. By giving recognition to those schools who performed well despite challenges encountered, others would try to emulate them.

On the national level, the government should highly prioritize as insufficient fund allocation for purchase or improvement of educational facilities seemed to be a perennial problem. Though education is usually on of the top agencies prioritized to receive the highest budgetary allocation in the yearly General Appropriations Act, it still way below the United Nation's recommended standard budget for education.

On the part of other government institutions like the local government unit of Pandan, it should institutionalize its support to public elementary schools in Pandan (not just through the local school board) through enabling resolutions and ordinances that would help improve the adequacy of educational facilities. The schools in the district could only do so much with resources available to them. But with the local government as a partner in the educational development of students in the area, the schools could further provide better environment for instruction and learning that could led to quality education.

Research

Further studies along the topic of this study could be made to generate comparison and to surface more relationships and connections. A study on the relationship of extent of adequacy of educational facilities to instruction and learning could be a good topic to start off. It should be emphasized, however, that studies along this line should not just be conducted by those who pursued graduate degrees but also DepEd and other pertinent agencies where the results could be the basis for policy formulations.

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