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Analyzing School Budget and National Achievement Test (NAT): Inputs to Policy Formulation

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**ANALYZING SCHOOL BUDGET AND NATIONAL ACHIEVEMENT TEST (NAT):
INPUTS TO POLICY FORMULATION**

A Thesis

Presented to

The College of Graduate Studies and Teacher Education Research

Philippine Normal University

Taft Avenue, Manila

In Partial Fulfillment

of the Requirements for the Degree of Master of Arts in Education

with Specialization in Educational Management

MA. GERMIE FERNANDEZ GAIN

April 2017

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“And we know that in all things God works for the good of those who love him, who have been called according to His purpose.” Romans 8:28 (NIV)

Above all, I would like to give all praises to the Lord Almighty God for giving me the strength, wisdom and patience to finish this work. Indeed, He is a faithful God. He is true to His promises and He works wonders for the good of those who love and believe in Him. To God be all the glory!

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Finally, to my family, to my loving parents, I will forever be grateful for instilling hard work and determination in my life. You are and will always be God’s greatest blessings to me.

- **M.G.F.G.**

To my parents, Roger and Emie,
for their belief in me
and the encouragement
to always strive to do my best.

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Abstract

Researcher	:	Ma. Germie F. Gain
Title	:	Analyzing School Budget and National Achievement Test (NAT): Inputs to Policy Formulation
Key Concepts	:	Allocation of School Budget, National Achievement Test, Student Achievement, Utilization of School Budget
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This study analyzes how schools in the Division of Antipolo City allocated and utilized its school budget and whether this helped improve student achievement in the National Achievement Test (NAT). Data were obtained from the participating implementing units for school years 2012-2013 to 2014-2015. The data were analyzed by means of Pearson correlation coefficients to determine if a relationship existed between specific school financial categories of the Annual Implementation Plan (AIP) and financial reports and the Mean Percentage Score (MPS) in NAT. Data were also analyzed through coefficients of variance to quantify the percent of the related sample that may be explained by the correlation of the variables. This study also suggests a policy recommendation that aims to guide school heads in the

utilization of school budget which would most likely improve student performance in NAT. Findings include that among the six financial categories reflected in the financial reports of the participating schools, training and seminar expenses, general services, repair and maintenance expenses and supplies and materials expenses were found to have significant relationship with the MPS in NAT. Moreover, the positive relationship of financial expenditures and student performance is strongest in Mathematics and the manner of spending financial resources only affects student performance in a number of subject areas but not the overall performance in the NAT. To narrow conclusions to find the most advantageous approach in utilizing the school budget to advance student performance, it is recommended to replicate the study with specific instructional expenditures, replicate this study using the overall top and low performing schools in NAT in the country and align the financial categories for utilization of school budget and its specific expenditures with the categories indicated in the Annual Implementation Plan of the schools.

Chapter 1

The Problem and Its Background

His entire morning in the office was allotted to the short visits of a few members of the faculty: the volleyball coach soliciting assistance with the upcoming city meet expenses, Science teachers asking financial help for the Science Investigatory Project seminar to be held the following week, a Mathematics teacher requesting to reproduce the activity sheets for her classes using the school's photocopying machine. In the afternoon, the disbursing officer also paid him a visit to report the monthly dues for electricity and communication, as well as the total amount of monthly remuneration for the utility workers and security guards of the school.

Every day, the school principals face financial related decisions to answer conflicting needs of their respective schools to provide quality education to its learners. This financial autonomy has been handed down to the school level through the implementation of School-Based Management, wherein school heads have been given management responsibilities to help them cope with the challenges of the rapidly changing world. It was found out that empowerment of school heads promotes quality, effectiveness and responsiveness of public educational institutions (Briggs and Wohlstetter, 2003; Kwan and Li, 2015).

School-Based Management

In the local context, School-Based Management started with the implementation of Republic Act 9155 "Basic Education Act of 2001" that mandated the decentralization

of the system of school management and recognized the role of the local government units and other stakeholders as partners in education delivery. However, it was only four years later that the school and its community was fully empowered to effectively address access and quality issues in basic education through School's First Initiative.

A year later, the policy expanded into Basic Education Sector Agenda that aimed to sustain and spread out the gains of School's First Initiative through School-Based Management which was later on identified as one of the key reform thrusts envisioned to effect improvements at the school level.

School-Based Management in the Philippines was designed to improve the academic performance of the students by empowering the school community to identify education priorities and to allocate the school maintenance and operating budgets to those priorities (such as curriculum enrichment programs) and by enhancing transparency and accountability through the Annual Implementation Plans and School Report Cards. School-Based Management proponents believed that by allowing those in school to make decisions, educators are better able to meet the needs of their students, thus improving their schools (Clover et al, 2004). If there is high involvement among the stakeholders, most likely, it would yield high student performance.

Even the four major components of School-Based Management centered on producing functionally-literate citizen, who is self reliant, patriotic, productive and service-oriented.

Looking through DepEd Order No. 83, s. 2012, as the basis of the processes involved in the four major components of School-Based Management, the first

component, Leadership and Governance, directed the Philippine educational system to achieve shared vision, mission and goals through development and review of development plans like the School Improvement Plan by the school community to keep it responsive to the emerging needs of the students as well as the society. It also included maintaining a leadership network that facilitated communication among the internal and external stakeholders of the school keeping everyone informed of the decision-making and solving community wide-learning problems.

The second component, Curriculum and Instruction, was anchored on the needs of the community and learners for continuous development and improvement. In this component, the schools were expected to develop and implement localized curriculum and assessment tools that would make learning more meaningful to the learners and which they can later on apply in the community they belong in. These curriculum and assessment tools were also expected to further nurture values that were consistent to the organization's vision, mission and goals.

Third, Accountability and Continuous Improvement included the clearly defined roles and responsibilities of accountable person/s and the collaboratively developed performance accountability system. The system, as per DepEd Order No. 83, s. 2012, must be owned by the community and must be continuously enhanced to respond to the emerging needs of the community.

Lastly, in the Management of Resources, it was expected that available resources were to be managed with transparency, effectiveness and efficiency. Inventory and regular monitoring must be undertaken by accountable person/s which

would serve as a basis for future allocation and mobilization and to further ensure judicious, appropriate and effective use of resources.

On a study conducted by World Bank (2010) reported that before the implementation of School-Based Management in 2002, School-Based Management and non-School-Based Management schools in the Philippines performed relatively similar in the National Achievement Test . However, in 2005, School-Based Management schools showed better performance in the National Achievement Test. For example, Mathematics scores between School-Based Management and non-School-Based Management schools increased to 1.58 percentage points, while Science scores were 2.03 percentage points higher, English scores were 2.20 percentage points higher and overall scores are 1.98 percentage points higher for School-Based Management schools.

Maintenance and Other Operating Expenses

Through the implementation of School-Based Management, school heads were given the authority to address immediate concerns regarding financial matters through the use of the allotted Maintenance and Other Operating Expenses from the national government. This financial autonomy allowed them to develop distinct cultures to enhance the present status of education through proper allocation and utilization of resources to meet the unique needs of the school which would later on solve learning problems.

The school's Maintenance and Other Operating Expenses was defined as the allocated funds for public elementary and secondary schools that can be spent on

activities and necessities (i.e. electricity and water) that support learning programs and help maintain a safe and healthy environment in schools.

It is an example of a budgetary tool known as “Formula Budgeting” that relied on quantitative measure and gives the appearance of reality of unbiased distribution (Goldstein, 2005). Likewise, formulas such as the Boncodin Formula used to compute for Maintenance and Other Operating Expenses are based on historical data, projected trends and negotiated parameters to provide desired levels of funding (Lasher and Greene, 2001). As such, Maintenance and Other Operating Expenses is determined by factors like: (i) number of students; (ii) number of teachers; (iii) number of classrooms; and (iv) number of graduates. The amount of annual fund given to a school was proportional to these factors (DepEd, 2015).

DepEd Order No. 12, s. 2014, “Implementing Guidelines on the Direct Release of Maintenance and Other Operating Expenses (MOOE) Allocations of Schools to the Respective Implementing Units”, released on March 6, 2014 stipulated how the Maintenance and Other Operating Expenses of a school can be used. It can be used to fund or pay for the following expenditures: (i) fund activities as identified in the approved School Improvement Plan (SIP) and as specifically determined in the Annual Implementation Plan of the school; (ii) to support expenses for training activities that are selected or designed based on the most critical needs to improve learning outcomes in the school; (iii) to pay for expenses for utilities and communications; (iv) to procure school supplies necessary in classroom teaching; (v) to finance expenses pertaining to

graduation rites not to exceed a cost of Php 250 per graduating student; (vi) to pay for wages of janitorial and security services; and (vii) to fund minor repairs.

To ensure transparency and accountability to the said allocation, schools were mandated to have a Transparency Board on Maintenance and Other Operating Expenses posting all expenditures in accordance with RA 9485 (Anti-Red Tape Act of 2007). Likewise, DepEd Order No. 13, s. 2016, "Implementing Guidelines on the Direct Release and Use of Maintenance and Other Operating Expenses (MOOE) Allocations of Schools, Including Other Funds Managed by the Schools" directed that schools should declare all sources of funding which includes Maintenance and Other Operating Expenses allocations, private donations, funding support from LGUs and local stakeholders, revenues from canteen operations and other income generated from disposal of assets, rent or collection of fees. School heads were required to post information on the said sources, intended use and actual utilization of funds in the Transparency Board that must be publicly accessible and must be updated every 3 months in accordance to RA 9485 (Anti-Red Tape Act of 2007),

Other sources of school funds come from the following: (1) revenue generated from the school canteen; (2) funding support that comes from the local government units which is called as the Special Education Fund (SEF), the additional one percent (1 %) tax on real property and is allotted by the Local Government Code to the local school boards. This fund is allocated by the Code for the operation and maintenance of public schools; construction and repair of school buildings, facilities and equipment; educational research; purchase of books and periodicals; and sports development in

amounts determined by the local school boards themselves (Republic Act 7160 “Local Government Code of 1991”). (3) funding support that comes from local stakeholders, such as the School Governing Council (SGC) and General Parent-Teacher Association (GPTA); and (4) DepEd approved income-generating projects of the school. These, together with the Maintenance and Other Operating Expenses, constitute the school budget for the entire school year.

It is known that through the years that funding for education around the globe continues to grow, however, this still showed no evident positive results to the student achievement.

In fact, when educational planners try to look at the scores of the students in the National Achievement Test, the standardized examination in the Philippines that includes core subjects (Mathematics, Science, English, Filipino and Araling Panlipunan) and Critical Thinking Skills Test, they can get a quick glimpse of the present status of the education in the country. The 75% Mean Percentage Score set by the Department of Education in the National Achievement Test, remains to be a vision yet to be realized.

In the National Achievement Test conducted in school year 2010-2011, two-thirds of the secondary schools in the country fared poorly with 67.10% of the schools getting below average test results, a mean score of 26-50% (Quismundo, 2011). DepEd Order No. 72, s. 2011, mentioned that of the entire population of secondary schools in the country that took the National Achievement Test, 0.35 % of the schools scored between 0 to 25% and only 1.13% scored superior, with a mean score of 76 to 100%.

A year later, in the National Achievement Test conducted during school year 2011-2012, the national average for the high school level was 48.9 % with the lowest MPS in Science which is 40.53% (de Dios, 2013). And though the MPS increased as compared with the results five school years ago, in school year 2005-2006, which was 44.33%, the national average is still far from the national target which is 75%.

Roles of School Heads in School-Based Budgeting

Debates on the impacts of educational funding to student achievement started to rise due to poor student performance. Public demands that schools have to be more productive and to be held more accountable to student performance as education holds the largest share of government budget (Verstegen, 2011). The very same pressure has motivated many educational planners and administrators to study better ways of using school resources, more specifically the school budget to positively impact student performance (Brinson and Mellor, 2005).

Okpala, Okpala and Smith (2001) pointed out a notion that schools are inefficient was argued on the basis of the apparent lack of incentives for education makers to maximize output. This resulted to misallocation of limited financial resources such as paying for expenditures that would not contribute to increased student performance.

One way of maximizing the effect of using financial resources to student achievement was school districts to make good budgeting decisions concerning non-instructional expenditure that has an effect on student achievement: the school leadership (Pugh et al, 2011).

Andrews (2014) stated that the campus leadership team is in the most advantageous position to ensure that need peculiar to their schools are sufficiently met. The efficiency of campus leadership team's decisions determines how funds are appropriated toward each category of instruction; hence principals are also responsible for student outcome.

However, 82% of the school principals who participated in the study dealt with issues relating to school facilities, resources and procedures but only 40% dealt with the same issues with taking action to promote student achievement.

Principals have multiple roles in shaping the direction of the schools. They attend to instructional matters, operation of facilities, maintain safe environment, communicate with parents, implement discipline measures, address staff concerns and professional needs, supervise student activities and manage student finances (Mutter and Parker, 2004). They also have to make sure to produce positive and productive work places for teachers and vibrant environments for children (Davis, Darling-Hammond, LaPointe and Myerson, 2007). But above all, they have to achieve an important goal: to make his/her school deliver high quality and challenging education that will prepare students to be successful after graduation (Stoskopf, 2013).

In order to realize the goal of education, a principal has to have budget as well as knowledge on how to effectively and efficiently spend it. Though principals often delegate some of the school's financial responsibilities to support staff like disbursing officers and bookkeepers, he/she is still ultimately responsible in ensuring that the

budget and other school building level financial responsibilities are handled correctly (Stoskopf, 2013).

Thompson and Wood (2001) stated that budgeting is crucial to the success of everything that happens to the schools for budget fuels the entire plan for the improvement of the school. It is the financial representation of an organization's vision and is the map guiding an institution on its journey in pursuit of its mission (Ginger, 2009; Goldstein, 2005).

One cannot argue with the fact that teaching and learning are the most crucial activities in districts and in schools; however, no teaching and learning activity could occur without sound and competent budgeting (Thomson and Wood, 2001). It is also widely acknowledged that schools have different needs and competing demands in the school level results to critical prioritization (Mestry, 2004). Schools will most likely find it difficult to function if they do not find enough budget to cover the necessary expenses. Financial constraints can be an inhibitory factor in producing good quality of education.

Hence, in the present time when resources are limited and the enrolment continues to rise, a principal, as the head of the school, should know where to direct the available budget, where these are more needed and will most likely achieve the goal of education. Proper budgeting ensures financial stability and this will later on result to smooth functioning; furthermore, effective management of resources sustains the good quality of education.

Ginger (2009) contended that the extent to which an institution is able to fully realize its vision is dependent on how effectively it allocates scarce resources. Good management of school finances leads to effective education (Joubert and Bray, 2007).

Schools and classrooms are the production units in education, gathering data on resource allocation and use at school sites is essential. One advantage of evaluating school level expenditures is the data it provides regarding how school leaders and their staff use available resources to support school improvement (Tolman, 2008).

Budgetary Related Effects on Student Achievement

Castellanos (2008) stressed that for many years, most of the educational policy makers and educational researchers chose not to examine the relationship of educational resources and achievement. Large part of it can be accounted to the publication of Coleman's Study in 1966 that asserted that differences in schools account for only a small fraction of differences in pupil achievement and that future investigation into resource distribution and possible educational disparities would not provide answers on how to improve the opportunities or achievement of educational deprived students (Espinosa, 1985).

However, as the accountability of the school and its staff to student achievement increased as years passed by, many educational researchers looked into the avoided segment in education delivery: the management of resources.

Roza (2009) posited that all costs ultimately impact student achievement. Likewise, Holmlund, McNally and Viarengo as cited by McCoy (2014) in her study found that school expenditures had a consistently positive and significant effect in all national

tests taken at the end of primary school and had a higher effect upon students who were economically disadvantaged.

There are available researches, though limited in number, that discuss the relationship of school resources with academic achievement but the premise that schools that spend more money produce better outcomes is widely disputed. Existing studies that have focused on specific expenditures, programs, or grade levels have been more definitive in identifying a potential relationship between spending and achievement, while those that look more broadly at per-pupil expenditures tend to show no relationship between the two (Doloff, 2015).

Research found that the manner in which money is spent is of greater importance than the total amount of money spent (Quality Counts, 1997; Harter, 1999; Malone 2000; Womack. 2000; Roza, Miles and Foley, 2003; Miller, 2002; Loeb, 2003; Dollof, 2015).

Moreover, Ludwig and Baasi in 1999 acknowledged that the effect of spending depends largely on how schools and districts choose to allocate funds. Miller (2002) supported this notion as her review on resource allocation found the positive effects of targeted spending and the positive relationship between resources and achievement.

A case study conducted by Archibald and Odden (2000), looked into the redesign of one of the lowest performing schools in which 98% of its total population was African American and the remaining 2% was Asian. The school did not receive any additional funds; it just reallocated its current resources to what it thought would help improve its student achievement. The shift in allocation and utilization of school funds included:

95% of the population received free or reduced lunch, they hired new staff, made new scheduling plan, created new philosophy and new curriculum, recess was also eliminated to gain more instructional time and curriculum was shifted back to basic which is "Direct Instruction". The school also reduced its class size with a maximum of 18 students per class, the resource positions were also redefined to ensure that these provide direct instruction, teacher aides were eliminated to hire more teachers. As a result, the school moved two categories higher in their district rating of student achievement.

The Condition of Education 2006 in Brief documented how school budget was utilized in school year 2002-2003. The report showed that majority of the school budget, 52%, was utilized to pay for expenses related to instruction, 7% for administration, 8% for operations and maintenance, 13% for capital outlay and 20% for other categories like student support, instructional staff and student transportation (Livingston, 2006).

School expenditures can be categorized into seven functions, according to Odden and Picus (2008): (1) instruction; (2) instructional staff services; (3) administration; (4) student support; (5) operation and maintenance; (6) transportation; and (7) food services.

Looking at their identified expenditures by function, Odden and Picus (2008) further defined which were included in each function. Instruction includes teachers' salaries and benefits, books, instructional materials and supplies, purchased services, tuition and other instructional supplies. Instructional staff services includes curriculum development, staff training, libraries, computer and media centers including salaries,

benefits, purchased services, tuition and supplies dedicated to this purpose. Administration, for both site and district level, includes salaries and benefits of principals, assistant principals, other administrators and secretarial staff as well as purchased services, tuition and supplies dedicated to this purpose. Student support includes salary, benefits, purchased services and supplies dedicated to guidance, health, attendance, speech pathology services, social workers, family outreach and other functions that support the instructional program or are focused on the well-being of students. Operation and maintenance, on the other hand, contains expenses related to salaries, benefits, purchased services and supplies for custodians, carpenters, plumbers, electricians, groundskeepers and other support personnel as well as for utilities and other expenditures dedicated to operating, maintaining, heating, cooling and cleaning schools and grounds. Transportation and food services, two separate categories included the salaries, benefits, purchased services and supplies dedicated to those respective purposes.

Another way of looking at the financial categories in education was presented by Kaiser (2009) citing the main types of expenditures as identified by the state of Indiana. The expenditures related to instruction, providing instruction, instructional materials, instructional supervision, whether within the school corporation or through a cooperative arrangement with another governmental unit or charter, activities dealing directly with the teaching of pupils, including teachers (salaries and related fringe benefits), teacher aides, principals, educational media services, textbooks, etc. will be included under Student Academic Achievement Category. Expenditures for those services that provide

administrative, technical, personnel, and logistical support to facilitate and enhance instruction of pupils. Pupil support services included in these expenditures are attendance, social work, guidance, health, psychology, speech pathology, audiology, instructional and curriculum development, governing body direction, and executive administration activities will be included in the Instructional Support. While expenditures for the operation of the school corporation are included are fiscal services (budgeting, payroll, and accounting), operation and maintenance of facilities, security, pupil transportation, food services, purchasing, and technology will fall under Overhead and Operational Category. Lastly, expenditures related to facilities acquisition and construction, purchase of non-instructional equipment, and debt service obligations will be listed under Non-operational (Kaiser, 2009).

Odden and Picus (2008) discovered that the amount of district level expenditures has remained constant from 1990 to 2002 with instructional expenditures taking up 60-62% of the overall total expenditures while instructional support, administrative costs, student support, operations and maintenance, transportation and food services remained steady.

High performing schools funnel higher percentage of their resources directly to the classroom. It was found that efficient schools spend more in areas that will directly impact the teaching and learning process (North Central Regional Educational Laboratory as cited by Lagrone, 2002; Milller, 2002).

A study conducted by Hughes in 2007 included 292 schools with instructional expenditure per daily membership (ADM) as her independent variable while student

achievement measured by percent of students passing both the Mathematics and English in ISTEP+ examination during the fall 2005 examination and found out that there was no significant association between 2005 instructional expenditures per ADM and the 2005 fall ISTEP+ examination. But the researcher stated that it should be not concluded that money is not necessary to support education. Money is required to support all aspects of schools such as paying salaries of certified and non-certified staff, maintaining and repairing facilities and supporting educational programs. And though additional funds are given to the schools, oftentimes, this budget is used to increase salaries rather than adding research-based practices that have a positive impact on student achievement.

Analysis of individual expenditures is the first step to linking school district expenditures to positive student outcomes (Pruslow, 2001).

Doloff (2015) mentioned that typical schools spent more on expenditure related to guidance, health services and social work for students while efficient schools engage students more on intellectual work. Moreover, Odden (2003) concluded that adequately funding each student at the school level means that money must be provided for each student based on their unique learning needs. For example, disabled students may require more funding than a non-disabled student and students from low-income or non-English speaking backgrounds may require more resources as well.

However, in some schools, instead of adding the available new resources in the regular classroom, these resources are being added outside it (Miles, 2000). This was supported by Odden and Picus (2003) when they noted that increased levels of school

finances were usually used to pay for specialist in the school who provided services for non-core subjects or for extra student needs outside regular classroom. They noted as well that because the percent of the education dollar spent on instruction had stayed about the same over the past 50-60 years, these changes within the instructional area of the budget have largely gone unnoticed.

Performing schools find ways to maximize their resources. Odden and Picus (2008) suggested that budget must be used to create effective curricula, principals must utilize effective leadership practices, keeps schools focused on performance and school leaders must help teacher create professional school cultures that focus on continuous improvement.

Miles (2000) found that schools begin to create their own successful strategies for improving student achievement. They are finding they need more autonomy and authority in the use of time, the selection and use of staff and the alignment of funds. To improve the quality of education, proper allocation and utilization of available resources are the keys.

Brinson and Mellor (2005) identified strategies implemented at the school level that seemed to contribute to higher achievement: team-teaching, increased instructional time, higher levels of teacher pay and tutoring. Baker, Sciarra and Farrie (2010) supported the same notion when they suggested that school fund must be invested in wisely in quality teaching, good facilities, strong curriculum, programs for struggling students and effective supervision.

There were research reports that claimed positive correlation of smaller class sizes to a better academic performance of students. Jepsen and Rivkin (2009) determined that the ten student reduction in California classes in 1996 raised student achievement levels .1 standard deviations when holding other factors constant. In smaller schools with smaller class sizes, students tend to be more motivated because they feel cared for, supported, valued and influential (Battistich, Solomon, Kim, Watson and Schaps, 1995). Likewise, Holmlund, McNally, Viarengo and Stockholms (2010) pointed out that a high quality study like Tennessee Student/Teacher Achievement Ratio (STAR) class size report found out that through reduction of class size, there is a positive and lasting correlation with student learning with the greatest impact on students in early elementary school.

Moreover, According to Education Indicators in Focus as cited by McCoy (2014), class size continues to be at the head of the education and political agenda for schools and educational policy makers, as well as with parents and other stake holders. In fact, class size is generally perceived as the determining factor in parents' choices for their children's school.

In relation to this, the amount of space per child inside the classroom may be just as important as the number of children in a classroom. According to Maxwell (2003), girls' academic achievement was negatively affected by less space per student and boys' classroom behavior was negatively affected by spatial density conditions.

Nevertheless, Schneider in 2002, claimed that class size reduction is one of the educational issues that has impact on educational planning and design since smaller

classes require more classrooms, if not, more schools. And this further requires additional funding.

Inside the classroom, large class sizes pose problems to the teachers. Many teachers complain that they cannot give students enough individual attention and they cannot find time to work with other teachers to improve student achievement (Odden and Picus, 2003). Berends, Bodilly and Kirby (2002) found that teachers need at least 3 hours a week to work together in order to improve and sustain student achievement. However, Miles (2000) found out that in elementary schools, teachers get to have only one period free from instruction as well as lunch and a few minutes before and after school. While in secondary schools, teachers get to have at least two periods free from instruction and lunch but most of the time is used in administrative duties. Byrne (2006) suggested to increase use of support staff would enable teachers to make better use of their time to focus on the core activities of teaching and learning.

School districts must also find ways to spend significant amount of time and money on recruitment and training of teachers.

Darling-Hammond (2004) quoted six key teacher quality indicators that have been found to impact student achievement independently and should be considered when examining teacher quality. These are general academic ability and intelligence, subject matter knowledge, knowledge of teaching and learning, teaching experience, certification status, teacher behavior and practice.

Rothstein (2011) pointed out that teacher quality has more of an influence on test scores than class sizes or average district-wide per pupil spending and schools are

better off having a good teacher in a larger class size than a poor teacher in smaller class size. Moreover, student performance tends to be lower in schools with not enough qualified teachers for a particular subject area (Heck, 2007).

Castellanos (2008) found that in 43 schools included in his study, less experienced teachers were associated in lower performing schools while more experienced teachers were more likely seen in high performing schools. Moreover, he found that beginning teachers were negatively correlated with academic achievement of the students while experienced teachers had positive correlation with academic achievement.

There are some evidences that the longer a teacher teaches, the better they become at instruction (Wayne and Youngs, 2003). However, recent studies showed that about 30% of new teachers leave after five years (Ronfeldt, Loeb and Wyckoff, 2013). This is due to low salary of the teaching personnel as well as lack of attention to their professional needs.

What Works Clearinghouse (2008) examine the effects of performance pay to teachers through a project named Achievement Challenge Pilot Project. The performance pay program paid bonuses to teacher whose students showed increases in test scores. The program found greater improvements in student achievement for students in schools that utilize the program compared to schools that did not participate in the performance pay program. Likewise, Lavy (2007) suggested that tying teachers' pay to their classroom performance should improve the current educational system both

by clarifying teaching goals and by attracting and retaining the most productive teachers.

Moreover, Heneman et al (2006) found out that Knowledge and Skill-Based Pay (KSBP) programs provide teachers with incentives for obtaining and utilizing specific knowledge and skills to increase student performance. These programs were found correlated with student performance.

Professional and personality development of teachers is widely seen as an important means of improving teaching and learning (Quint, 2011). Vogel as cited by McCoy (2014) mentioned that investment in professional development has been shown to produce a great increase in student achievement and that the National Staff Development Council recommends that the school districts invest 10% of their budgets on professional development and that teachers spend a quarter of their workweek on professional development. In addition, Wayne and Youngs (2003) believed that in order to fully maximize teachers' potentials, the school administration must send them to trainings and seminars related to their area of specialization since the effects of teacher certification appear only when teachers have certification for the subject taught. High student achievement has direct links with effective professional development that creates effective strategies (Odden et al, 2003).

When principals employ practices that support teacher learning, teachers thrive as they are challenged to grow (Blase, and Blase, 2001; Donaldson, 2008; Moller and Pankake, 2006). This way, principals influence instruction by establishing the conditions for teachers to be effective (Monk, 2008; Rice, 2003; Rice and Malen, 2003), teachers

who are masters of instructional strategies, classroom management, classroom curriculum design and use of assessment as a feedback tool (Marzano, 2003).

Teacher empowerment has been also found to be positively related to student achievement (Sweetland and Hoy, 2000). Since teachers are in daily contact with the students, they are better equipped to participate in making decisions that concerns the teaching-learning process. Empowering teachers also boosts their morale that also helps improve student achievement when Black (2001) found association of low teacher morale with low student achievement and less effective schools.

Effects of athletics expenses to student achievement were also investigated. Meier and his colleagues (2004), later on supported by Ward (2007), attempted to link athletic expenditures to student achievement in Texas. Attendance, achievement scores, average scores for the national standardized exams were considered as the dependent variables however found negative correlation between athletic expenditures and student achievement and the researchers suggested further studies. Although more recent researcher reports found positive relationship between extracurricular and student achievement (Dick, 2010; Sudhir, 2010).

Another factor that affects student academic achievement is technology. 21st century learners learn best when technology is integrated in the lesson. Grinager (2006) said that with effective implementation, technology can lead to improved student outcomes. Interactive technological materials would help students increase their motivation and enjoy the entire learning process, it would also provide additional

opportunities for participation and collaboration and increase student creativity (Levy, 2002).

McCombs (2003) stated that the learning environment has a direct impact on student learning. One of the primary school principal interviewed by Byrne (2006) said that the environment in which anyone learns has got to be attractive and if possible, they would like to offer high quality to both their teachers and students.

Schneider (2002) believed that clean air, good light and a quiet comfortable and safe learning environment positively affect learning. But these also require an adequate cut from the budget and competent design, construction and maintenance.

Keeping the students motivated and interested in the lessons will keep them attending school. Abu-Hilal (2000) found out that students perform at a higher level when they have positive attitudes to their school and teachers. They also perform better when there is a good disciplinary climate that exists in their school (Ma and Klinger, 2000) and to further keep students attending their classes, school administration must look into increasing peer interaction and increasing school diversity (Kewal Ramani, 2007) and ensuring the student feel supported and engaged in the educational process (Klem and Connell, 2004).

There are also other factors that affect the academic achievement but beyond the control of the school administration. These are the Socio-economic Status (SES), school size and the geographic location of the school.

Perry and McConney (2010) found that an increase in the average socio-economic status of a school leads to an increase in student achievement level. Though

socio-economic status is not particularly malleable to policy intervention, it accounts for about 10 to 20% of the variation in student performance in developed countries [Marks, 2008; Organization for Economic Cooperation and Development (OECD), 2007].

Another is the school size or the student population. There are conflicting arguments about the effect of school size to student achievement level. Loneville (2014) mentioned in his study that those in favor that large schools perform better than small schools tend to argue that it is cheaper and more efficient to operate. There are also arguments that larger schools offer a greater depth and breadth in curriculum offerings. On the other hand, Eddy (2003) believed that in smaller schools, practices like sharing knowledge and curriculum increased teachers' technical abilities and facilitated interaction among teachers and hence reduced alienation and increased efficacy.

Geographic setting of the school affects the student academic levels as well. Young (1998) found in the study conducted in Australia that students in rural area did not perform as well as those in urban areas. This outcome was supported by Byun, Meece and Irvin (2012) with their study that found a significant disparity in student achievement level between suburban and non-suburban schools.

With the extant research reports in the field of education, it can be inferred that one has to become efficient in handling the available financial resources and make the necessary shift in the budget allocation and utilization to bring out positive student achievement. However, reports focusing on how schools manage their financial resources and how these affect the student performance in standardized examinations are still limited in number and need further investigation.

It is on this premise that the researcher found it relevant to conduct a study in the local context which aimed to find out how secondary schools in the Division of Antipolo City utilized the school budget and which among the expenditures received the highest budget allocation based on the Annual Implementation Plan for the last three years. All these were then related to the schools' performance in the National Achievement Test, wherein obtained results served as a basis of the current standard of education in the country. The conclusions derived from the analysis of data were utilized in order to create a set of guidelines that may be applied to guide and facilitate school administrators on how to efficiently and effectively use and allocate the school budget that will improve student achievement in the National Achievement Test.

Conceptual Framework

Budget ensures the achievement of the school's objectives- school plans that required the spending of money is taken care of by the budget (Blake, 2002). Likewise, Hallak (n.d) as indicated in his report for UNESCO considered budget as the most appropriate tool for controlling the implementation of the plan through the programming of its costs and ensuring of annual appropriations of funds needed.

Limited available research reports show that the amount of money spent is less important than the manner of how it is spent. Helvey (2006) stated in his study that money does matter as long as it is efficiently applied and productively utilized through variety of carefully integrated instructional strategies like reducing class sizes, quality teachers, targeted professional development, quality materials and quality support. He also added that schools need to focus their attention on student improvement and have

autonomy to allocate their resources that have the greatest potential of improving student achievement.

This notion can be traced back to the concept of educational production function that is a statistical comparison of educational inputs to specific outcomes. It ensures efficiency of production by considering the relationships between two or more factors that are relevant when producing a good or service (Stanley, 2016).

Applying this in the local context, Mijares and San Luis (1988) presumed that the educational system of a nation is efficient if the quantity and/or quality of education are at maximum from the utilization of a given resources such as the school budget. Allocating and utilizing the available resources on targeted expenditures that are known to be positively related to student achievement will most likely yield improved student performance in the National Achievement Test.

Hughes (2007) posited that money is indeed required to support all aspects of schools. And though there is an increase in funding, this budget is used to increase salaries rather than adding research-based practices that have posited impact on student achievement.

The manner of how schools allocate their school budget on programs, plans and projects for one school year and how much would be given to fund such activities and the actual utilization of school fund and which school expenditures was funded the most could be significant predictors of student performance with the evidence of improved Mean Percentage Score in the National Achievement Test.

Figure 1 illustrates how allocation and utilization of school budget can affect the Mean Percentage Score in the National Achievement Test through: (1) allocation of a certain cut of the school budget to fund proposed plans, programs and projects to promote student development, faculty development, curriculum development, physical facilities development and management and administration; and (2) actual utilization of school budget to fund expenditures under the six financial categories lifted from DECS Service Manual (2000), namely Travelling Expenses, Training and Seminar Expenses, Supplies and Materials Expenses, Physical Facilities Expenses, Utilities and Communication Expenses and General Services Expenses.

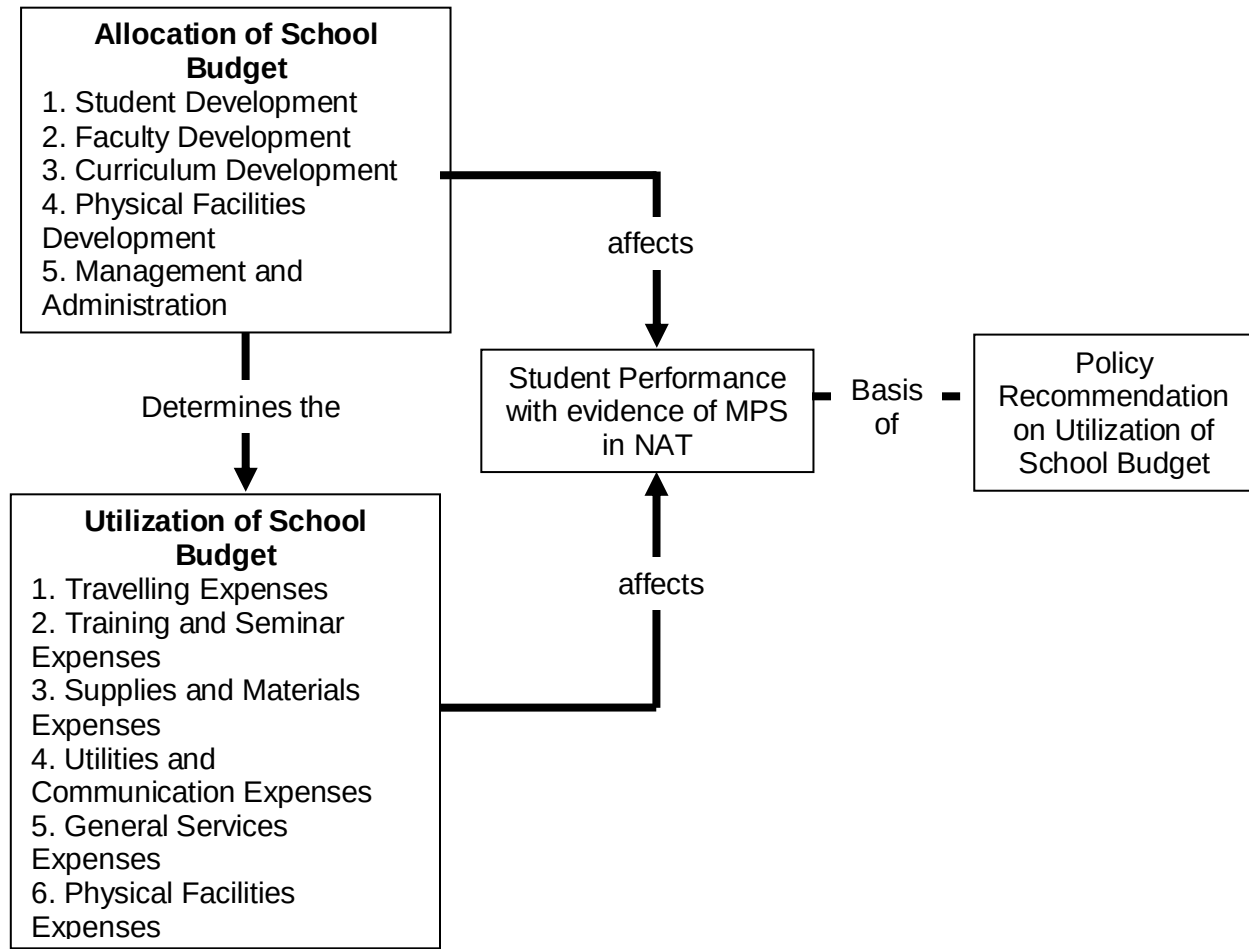


Figure 1. Link of allocation and utilization of school budget and Mean Percentage Score in the National Achievement Test.

Figure 1 outlines variables of the whole investigation. The allocation of school budget includes the proposed financial plan of the schools for programs and projects under the categories: Student Development, Faculty Development, Curriculum Development, Physical Facilities Development and Management and Administration, as reflected on the school's strategic plan for one school year that is called Annual Implementation Plan (AIP).

Student Development category includes the plans, programs and projects of the school that aim to improve student performance by targeting factors such as: numeracy rate, reading level, dropout rate, as well as intervention programs that address least mastered skills/competencies by quarter.

Faculty Development includes the programs to help the staff of the school in their professional growth and development. This also includes the proposed budget for trainings and seminars inside or outside the school.

Curriculum Development, on the other hand, includes the plans to acquire instructional materials that will aid the teaching and learning process.

Physical Facilities Development includes the plans for the annual maintenance or minor repair of school facilities while Management and Administration includes the plans and proposed budget for utilities and communication expenses, gender and development activities, purchase of office furniture and school forms, school IDs and remuneration of school guards and utility aides.

Whereas, utilization of school budget includes actual expenditures paid by the schools under the following expenditures lifted from the DECS Service Manual (2000): Travelling Expenses, Training and Scholarship, Supplies and Materials, Utility and Communication Expenses, General Services and Repairs and Maintenance.

Travelling expenses included expenses relating to the transportation of school personnel, may it be by land, by air or by sea, parking fees, road tolls, non-commutable transportation allowances and other related expenses.

Training and seminar includes expenses incurred for participation/ attendance of school personnel to trainings and seminars while Supplies and Materials includes the cost of all expendable commodities acquired for immediate use. Examples are: printed forms, cards, ledgers, journals, pencils, cartridge, brooms, paint brushes, nails, soaps, powder, inks, medical supplies, construction materials for instruction purposes (DECS, 2000). For the purpose of the study, acquisition of projectors, textbooks, LED TVs and printers were included in this category as these were materials purchased to aid classroom instruction.

Utility and Communication includes expenses for communication of messages such as telephone, internet and electricity expenses. General Services is comprised of the compensation for the janitorial and security services while Repair and Maintenance includes the cost for repairing and maintaining of buildings and other structures, machinery and equipment and other property, plant and equipment.

The allocation and utilization of school budget is then correlated to the Mean Percentage Score, overall and by subject area, of the students in the National Achievement Test. This will show which among the financial expenditures have high correlation with the results in the National Achievement Test from school year 2012-2013 to 2014-2015 as well as which expenditure manifest significant relationship with the Mean Percentage Score in the National Achievement Test. The manner of allocation and utilization of school budget will then be the basis of the policy recommendation on utilization of school budget in a City Schools Division.

Trainings and Seminars of Teachers

The proposed budget allocation under the Faculty Development Category in the Annual Implementation Plan and actual utilization of fund under Trainings and Seminars Expenses in the financial reports of the schools will show if the school leadership team prioritizes the professional growth and development of teachers.

Quint in 2011 stressed that professional and personality development of teachers is an important means of improving the teaching and learning process. Likewise, Odden and his colleagues (2003) believed that high student achievement has direct links with effective professional development that creates effective strategies.

Supplies and Materials

Districts spending 61% or more on instruction perform better academically on assessments than districts spending 60% or less on instruction related expenses (Jones and Slate, 2010). Moreover, students learn best when technology is effectively integrated in the lesson (Grinager, 2006).

In the AIP of the schools, plans and programs on instructional related expenses like purchase of instructional materials to be used in the classrooms or during intervention programs are reflected in the Student and Curriculum Development. Whereas, the actual utilization of the school funds for instructional materials are recorded under Supplies and Materials Expenses.

Physical Facilities

Learning environment has a direct impact on student achievement (McCombs, 2003). School environment, as well as the classrooms must be in their best state in order for maximum learning experience to take place.

Plans on minor repairs and maintenance are included in the Physical Facilities Development category in the Annual Implementation Plan and actual spending on labor and materials are recorded in the Financial Reports of the schools under the financial category called as Physical Facilities Expenses.

Management and Administration

Clean air, good light and quiet and comfortable and safe learning environment positively affect learning (Schneider, 2002).

In order to provide such to both learners and school personnel, principals must be able to set aside a certain cut from the school budget for utility workers to keep the school surroundings clean, school guards to keep the school premises safe and enough amount to pay for utilities and communication expenses. These are all included in the Management and Administration category in the school's Annual Implementation Plan and actual spending for these expenditures are recorded in the General Services category and Utilities and Communication Expenses.

Meanwhile, travelling expenses is subsumed in all categories as this is the total of the amount spent on school personnel's public utility vehicles fare whenever they go out of the school on an official business status.

It is assumed based on the extant research reports in the field of education that the manner of how school leadership team, headed by the school principal, manage the school financial resources affect the school performance. Expenditures related to instruction, such as trainings and seminars of teachers and purchase of instructional materials, will most likely yield to positive student performance.

Research Problems and Hypotheses

This study aims to identify the sources of school fund of secondary schools in the Division of Antipolo City and how these funds are being utilized within the school year. It also seeks to find out the relationship of the performance of the secondary schools in the National Achievement Test with how they utilize the annual school budget to propose guidelines in managing school budget to improve student performance.

The research aims to answer the following questions:

1. How is school budget managed in terms of:

1.1 allocation

1.1.1 Student Development

1.1.2 Faculty Development

1.1.3 Curriculum Development

1.1.4 Physical Facilities Development

1.1.5 Administration and Management

1.2 utilization

1.2.1 Travelling Expenses

1.2.2 Training and Seminar Expenses

1.2.3 Supplies and Materials Expenses

1.2.4 Utilities and Communication Expenses

1.2.5 General Services Expenses

1.2.6 Repair and Maintenance Expenses?

2. How may the secondary schools NAT be described for the last three years in terms of:

2.1 MPS by subject area

2.2 MPS in general?

3. How does allocation and utilization of school budget relate to the MPS in NAT of the secondary schools in the Division of Antipolo City?

4. What inputs to policy formulation may be proposed in managing school budget relative to NAT?

5. What framework can be developed based on the findings?

In the light of the facts mentioned in the collected related literatures and studies, the researcher had formulated the following hypotheses:

1. There is a significant relationship between allocation of school budget and MPS in NAT.

2. There is a significant relationship between utilization of school budget and MPS in NAT.

Definition of Terms

This section includes the characterization of the terms used in the study conducted:

Allocation

For the purpose of this study, allocation is defined as the planned apportion of school budget to a specific plan, program or project as reflected on the school's Annual Implementation Plan. This is measured in per student allocation which is computed by dividing the proposed budget per category in the AIP by the Beginning of School Year (BoSY) Enrolment.

Implementing Units

This refers to schools in the city schools division that have position items assigned to handle cashiering and bookkeeping functions, whether on a permanent or temporary basis (DepEd Order No. 12, s. 2014)

Instructional Expenditures

This refers to expenditures related to instruction, providing instruction, instructional materials, instructional supervision, whether within the school corporation or through a cooperative arrangement with another governmental unit or charter, activities dealing directly with the teaching of pupils, including teachers (salaries and related fringe benefits), teacher aides, principals, educational media services, textbooks, etc (Kaiser, 2009).

For the purpose of this study, instructional expenditures include Student Development, Faculty Development and Curriculum Development categories in the Annual Implementation Plan. Whereas, in the financial reports of the schools, instructional expenditures include Trainings and Seminar Expenses and Supplies and Materials Expenses.

Non-Implementing Units

This refers to schools that the cashiering and bookkeeping functions are being handled by the city schools division office (DepEd Order No. 12, s. 2014).

Non-instructional expenditures

This refers to expenses that are thought to have less direct impacts on student achievement like support services (Dee, 2005).

For the present study, non-instructional expenditures include categories such as Physical Facilities Development and Administration and Management in the Annual Implementation Plan. For the utilization of school budget as reflected in the financial reports of the school, non-instructional expenditures include Utilities and Communication Expenses, General Services, Travelling Expenses and Repair and Maintenance Expenses.

Policy

For the purpose of this study, policy is defined as a definite course of action to guide and determine the decisions of school heads in the effective and efficient utilization of school budget to improve student performance. This also shows the overall plan to achieve the goal of improved performance in the National Achievement Test.

School Budget

This refers to the summation of MOOE and other sources of school income (canteen funds, SEF, funding from local government units and stakeholders and income generating projects of the school) in Philippine Peso (PhP).

Student Achievement

For the purpose of this study, student achievement refers to the Mean Percentage Score of the students in the National Achievement Test from School Year 2012-2013 to 2014-2015.

Utilization

For the purpose of this study, utilization is defined as the actual use of the school budget as reflected on the annual financial reports of the schools. This is measured in Per-Pupil Expenditure by dividing the total amount spent on each financial category divided by the Beginning of School Year (BoSY) Enrolment.

Chapter 2

Methods

This chapter includes information about the research design used in the study, the research methodology that is comprised of collection of National Achievement Test results for school year 2012-2013 to 2014-2015 as well as the financial reports of the same school years from the key persons (Enhanced Basic Education Information System Coordinators, bookkeepers and disbursing officers) of the participating implementing units, the sampling method and the participants as well as the data gathering and analysis procedures.

Research Design

The recent quantitative correlational research was used to determine if there is a relationship between the allocation and utilization of school budget and the Mean Percentage Score in National Achievement Test of the 5 participating schools in the Division of Antipolo City.

Correlational research is beneficial since it provides information on how one variable affects the other. The current study examined whether the six financial categories adapted from the DECS Service Manual (2000), were individually and/or collectively significant predictors of the Mean Percentage Score in the National Achievement Test. Quantitative studies determine whether there is or is not a correlation between aspects of focus (Creswell, 2009).

The dependent variable in the study was the student achievement as manifested in the Mean Percentage Score of the National Achievement Test for school years 2012-2013 to 2014-2015, while the independent variable was the school budget, described in financial categories, how it was allocated, utilized and which among the school-related expenditures received the highest allocation.

The study examined how the participating schools allocated and utilized the available school budget for school years 2012-2013 to 2014-2015 in which National Achievement Test was administered to the secondary schools in the country.

Sampling and Participants

Purposive sampling was used to have the needed documents for the study. In purposive sampling, participants are chosen based on one or more trait to give what is believed to be a representative sample (Gray, 2004). To this effect, a sample of seven secondary schools was asked to participate in the study out of 64 public schools in the Division of Antipolo City.

The sample was chosen based on their status as an implementing unit as of school year 2012-2013. However, only five implementing units were able to comply with the necessary documents needed in the study. One failed to submit the requested document on the set deadline while the other implementing unit declined the invitation to participate in the study.

Two of the five participating Implementing units are located in the city proper, the other two in lower Antipolo City. While the last implementing unit is located in upper Antipolo City.

Table 1 shows the Beginning of School Year (BoSY) Enrolment of the participating implementing units in the study.

Table 1

Beginning of School Year (BoSY) Enrolment of Sample Implementing Units

Implementing Unit	SY 2012-2013	SY 2013-2014	SY 2014-2015	Average Enrolment
School 1	4394	4490	4664	4516
School 2	3999	4262	4425	4229
School 3	1347	1477	1565	1463
School 4	3014	3020	2905	2980
School 5	5405	5492	5881	5593

The data mainly came from the National Achievement Test results from the school effectiveness report of the EBEIS Coordinators and the financial reports of the bookkeepers. Permission was requested from the Division Office, most specifically from the Schools Division Superintendent, to conduct the research and to gather needed documents from the participating schools.

Instruments

The documents that were collected from the schools were: Annual Implementation Plan, financial reports, Mean Percentage Score in the National

Achievement Test and enrolment records. All documents were records for school years 2012-2013, 2013-2014 and 2014-2015.

For allocation of school budget, Annual Implementation Plan of the school was used to determine the proposed budget in each category: Faculty Development, Student Development, Curriculum Development, Physical Facilities Development and Administration and Management. Then, the total proposed budget for programs under each category was divided by the Beginning of School Year (BoSY) enrolment in order to get per student allocation.

Whereas, actual expenditures of the schools were classified based on the six financial categories adopted from the DECS Service Manual (2000) and as seen in the Comparative Statement of Financial Performance of the participating schools, namely: Travelling Expenses, Training and Seminar Expenses, Supplies and Materials Expenses, Utilities and Communication Expenses, General Services Expenses and Repair and Maintenance Expenses. For the purpose of this study, all the financial categories was considered to be funded not only by the Maintenance and Other Operating Expenses but also by other school income, since funding was viewed as the total budget of the school for the entire school year. The actual amount spent on each financial category was divided by the Beginning of School Year (BoSY) enrolment in order to determine per-pupil expenditure.

Financial reports of the bookkeepers for school years 2012-2013 to 2014-2015, are also available in the Transparency Board of the schools, as mandated by law (RA 9485).

After computing the allocation and utilization of school budget per student for each category these were related to the Mean Percentage Score in the National Achievement Test, overall and by discipline.

Data Gathering Procedure

The data that were analyzed for this research were gathered during the Second Quarter of school year 2016-2017.

First, a Notice to Proceed was secured after the draft of the manuscript was evaluated by the Ethics Committee of the university. The notice received was used as an attachment in all communication letters submitted to the City Schools Division of Antipolo and implementing units.

Then, a letter was submitted to the Division Office addressed to the Schools Division Superintendent requesting approval to conduct a study in the division. As a proof of the approval given by the Schools Division Superintendent for the request made, a division letter was issued and addressed to all secondary implementing units in the division to comply with the necessary documents needed for the study.

Next, letters were sent out to the school heads of the secondary implementing units in the Division of Antipolo City, requesting for the following documents: Annual Implementation Plan for school years 2012-2013 to 2014-2015, financial reports for Maintenance and Other Operating Expenses, funding from the Local Government Units, local stakeholders, General Parent-Teacher Association, income generating projects of the school and revenues from the canteen for the same school years. Beginning of the

School Year (BoSY) enrolment for school years 2012-2013 to 2014-2015 was also requested from the school heads.

Upon the retrieval of the requested documents from the participating implementing units, per student allocation by category based on the proposed budget reflected in the Annual Implementation Plan and per pupil expenditure by category based on actual spending as reflected in the financial reports were computed.

Proposed total budget for each category of the Annual Implementation Plan was divided by the Beginning of School Year (BoSY) enrolment of the school year being studied. The resulting figure was then referred to as per student allocation. Whereas, per pupil expenditure was computed by dividing the amount utilized for each expenditure category lifted from DECS Service Manual (2000) by the enrolment of the year being studied.

Per student allocation and per pupil expenditure were related to the Mean Percentage Score in National Achievement Test (NAT) by subject and overall.

Data Analysis

The current research sought to determine whether there is a significant relationship existed between allocation and utilization of school budget of the secondary schools in the Division of Antipolo City and Mean Percentage Score in the National Achievement Test.

Descriptives, Pearson correlation coefficient and coefficient of variance (r^2)- and an $\alpha=0.05$ were utilized to answer the research questions for all procedures. All results were presented using tables.

In determining the relationship between the allocation and utilization of school budget to different expenditures and Mean Percentage Scores in the National Achievement Test, Pearson Product Moment Correlation Coefficient was computed using Microsoft Excel 2007. The correlation coefficient is the measure of the relationship between the two variables. Hinkle et al. (1998) present the following “rule of thumb” for interpreting the strength of the Pearson r .

.90 to 1.00 (-.90 to -1.00) is considered a very high positive (negative) correlation.

.70 to .90 (-.70 to -.90) is considered a high positive (negative) correlation.

.50 to .70 (-.50 to -.70) is considered a moderate positive (negative) correlation.

.30 to .50 (-.30 to .50) is considered a low positive (negative) correlation.

.00 to .30 (-.00 to -.30) is considered to have little (negligible) if any correlation.

Whereas coefficient of variance helped determine predictability among future outcomes between the tested variables. The variance ranges from 0 and 1.00 with stronger coefficients of variance producing r^2 values closer to 1.00 and weak coefficient of variance closer to 0.

Coefficients of variance allow researchers to quantify the percent of the related sample that may be explained by the correlation of the variables.

Ethical Considerations

In conducting the present study, individual test scores of the students in the National Achievement Test were not observed. National Achievement Test results were collected from the EBEIS Coordinators which were handed down by the Division Office through Division Memorandum was used for this study.

The Annual Implementation Plan of the school describes how the key improvement strategies in the school strategic plan, and other significant projects, will be put into operation during the year and how they will be monitored. Tentative budget for each program and project is also included in preparing the Annual Implementation Plan. Financial reports of the schools involve all the expenditures that are being reported monthly and made known to all stakeholders in accordance with RA 9845 (Anti-Red Tape Act of 2007) that mandates all schools to have Transparency Board on Maintenance and Other Operating Expenses posting all school expenditures using the allocated funds.

The data collected using the documents from the participating schools were used to examine the relationship of school expenditures and school performance. Likewise, these data shed light to the relationship of six financial categories and student achievement.

The researcher secured an endorsement letter from the Schools Division Superintendent to conduct the research before meeting the prospective school participants which was chosen based on purposive sampling. These are the implementing units, schools that have their own bookkeepers and disbursing officers who manage the records of all financial matters of the schools.

Principals of the schools included in the sample were informed about the purpose of the study and were asked to participate through a letter attached with the endorsement signed by the Schools Division Superintendent and the ethical clearance from the university. Approval letter was signed by the principals as proof of their

permission to use documentary materials related to school financial management. Instead of using the full names of the schools, numbers were used to ensure confidentiality and anonymity.

This study aimed to help school heads/administrators in the quest to improve the quality of education by proposing a set of guidelines in managing school budget that could bring out positive results in the National Achievement Test.

Chapter 3

Results and Discussion

With the increase in educational funding and expectations from national accountability standards, educators and policy makers have been persistently finding for the most efficient and effective manner of allocating and utilizing the school's financial resources to ensure improvement in student achievement. Therefore, the purpose of this study was to determine which among the financial expenditures, both in the Annual Implementation Plan and financial reports of the schools, have significant relationship with student performance in the National Achievement Test.

In this chapter the following sections will be addressed to present the findings of the research in the following topics: (a) allocation and utilization of school budget based on the Annual Implementation Plan and financial reports, (b) classification of the Mean Percentage Scores of the sample implementing units in the National Achievement Test, (c) correlation for the relationship between allocation and utilization and National Achievement Test results, (d) inputs to policy formulation and (e) policy framework for utilization of school budget in City Schools Division.

The first research question that this study aimed to address was how the participating implementing units managed their school budget in terms of allocation and utilization.

Management of School Budget in Terms of Allocation

Looking at the Annual Implementation Plan submitted by the implementing units for this study, it can be observed that the plans, projects and programs of a school for one school year, together with its corresponding cut from the school budget, revolved around five major categories: A. Student Development; B. Staff Development; C. Curriculum Development; D. Physical Facilities Development; and E. Administration and Management.

Student development includes plans, programs and projects that aim to improve the efficiency and effectiveness level of the school. This is comprised of budget allocations for strategies that will help increase students' performance in the National Achievement Test to meet the set standards of the Department of Education, improve nutritional status of the students and eradicate malnourishment, develop mathematical skills as well as reading level of all students and to decrease dropout and repetition rates of the school. This further involves activities related to extracurricular activities, like sports program and theater arts club and to help increase passers of Accreditation and Equivalency Examination (A and E Exam).

While staff development involves plans and budget allocations for training of teachers to enhance their knowledge and commitments in terms of their duties and responsibilities and attitude towards work.

Curriculum development involves programs and projects, with its corresponding budget, for production and reproduction of instructional materials and school publication, it also involves repair and maintenance of computers and devices to sustain

ICT integration in all subject areas and to improve the manipulative skills of all students in TLE and MAPEH through purchase of additional tools and equipment.

Expenses which do not directly affect instruction fall under physical facilities development, general services and administration and management. Physical facilities involve plans to repair and maintain sound system, install electrical apparatus and replace lights, repainting of classrooms, tables and tools as well as landscaping to make the school and classrooms more conducive to learning.

For programs and projects related to management and administration involve budget for gender and development training, acquisition of bond paper, riso ink, master roll, school forms, office furniture, student ID, graduation rite expenses and school supplies, hiring of school guards and utility workers and payment for communication and other utilities.

Table 2 lists the descriptive statistics of the five major categories of the plans, projects and programs of the implementing units as seen in their Annual Implementation Plan for the school years being studied.

Table 2

Descriptive Statistics for Per Student Allocation of Sample Implementing Units in Philippine Peso (Php)

Categories	SY 2012-2013				SY 2013-2014				SY 2014-2015			
	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
Student Development	63.04	523.71	193.8	189.14	52.78	512.52	183.38	189.86	34.08	493.4	174.5	184.87
Staff Development	33.41	170.78	94.34	60.76	9.93	167.13	72.47	73.89	31.95	160.89	90.93	55.6
Curriculum Development	41.12	1267.68	296.68	542.88	40.24	1247.6	298.54	530.83	38.74	1165.08	300.54	485.73
Physical Facilities Development	0	59.72	24.5	25.58	0	69.64	21.31	28.72	0	134.25	41.82	55.8
Administration and Management	0	537.56	222.25	227.39	0	484.09	218.97	215.4	0	434.7	223.55	208.57

For the school years included in the scope of this study, the participating implementing units allotted the highest average per student allocation for student development during school year 2012-2013 with an amount of Php 193.80 per student with majority of the individual allotment of the implementing units for this category falling

within Php 4.66 – Php 382.94. This was then followed by school years 2013-2014 and 2014-2015 respectively.

However, looking at the five categories in the Annual Implementation Plan of the implementing units, student development only ranked third in relation to the priority areas of the schools when preparing the strategic plan of the school for one school year.

Nonetheless, participating schools in the study allotted not less than 20% of their per student allocation on student development. This denotes that implementing units, in the course of three school years, target the improvement of the performance of the student in academics by improving not only the reading level and the numeracy rate but also the nutritional status and promotion rate of the school and decreasing the present dropout rate through proposed programs and projects.

Despite the idea that teachers are the number one instructional materials inside the classroom, staff development was seen to be fourth among the priority areas in the Annual Implementation Plan on school year 2012-2013 with a mean of Php 94.34 per student and highest individual allocation of Php 170.78 on the same year. The minimum allotment for staff development based on the budget reflected in the Annual Implementation Plan of the implementing units was seen in school year 2013-2014 with only Php 9.93 per student.

This gives the idea that aside from the fixed In-Service Training during the months of May and October, schools do not give much attention, as shown by the small amount allotted for staff development, on sending teachers to trainings and seminars

that will help them in their professional growth. Or if they do send teachers to these activities, only few teachers, the key teachers most likely, would get the opportunity to attend due to the small cut in the school budget for staff development.

Curriculum development was found to be the prioritized area of the implementing units in the Division of the Antipolo City as their budget reflected in the Annual Implementation Plan for the three school years being studied showed that this category received the highest average budget allocation from the 5 implementing units for three consecutive school years.

This can be accounted for the plans of the implementing units to increase the number of sports, office, TLE and laboratory equipment as instructional materials from a ratio of 1:2 groups to 1:1 group, to provide adequate supply of reference textbooks in line with the present curriculum and to develop instructional materials using multimedia to meet the Department of Education standard for lessons with ICT integration. These materials were planned to help teachers in the delivery of their lessons and required competencies for effective teaching and learning process to take place.

Looking at the tentative budgeting trend of the five sample implementing units, more than 30% of the average per student allocation was allotted to improving the delivery of the curriculum to the learners through acquisition of more effective instructional materials well-suited to the 21st century learners.

Table 2 also suggests that physical facilities development was the least priority of the implementing units based on the average budget allocation per student set for the three school years. This category received an average of Php 29.21 per student during

school years 2012-2013 to 2014-2015 from 3 participating implementing units in this study. Moreover, School 1 and School 5 did not include any plans, projects or programs under this category, instead they allotted their financial resources to the three previous categories namely: student development, staff development and curriculum development.

Likewise, the same two implementing units did not include budget allocations for administration and management category. But for the remaining three implementing units, an average of Php 221.59 was allotted for three years with an allocation of Php 222.25, Php 218.97 and Php 223.55 from SY 2012-2013 to SY 2014-2015 respectively. This included payment for administrative aides, guards, communication and electricity bills which was paid by the implementing units monthly.

Management of School Budget in Terms of Utilization

A copy of financial reports on utilization of school budget was requested from the participating implementing units of the study. These financial reports include Maintenance and Other Operating Expenses utilization, canteen funds, funding from local government units and local stakeholders, and income-generating projects of the schools.

Expenses reflected on these reports were then categorized based on the types of expenditures cited in DECS Service Manual (2000), namely: Travelling Expenses, Training and Seminar, Supplies and Materials, Utilities and Communications, General Services and Repair and Maintenance.

Travelling expenses, as mentioned in DECS Service Manual (2000), include disbursements related to expenses relating to the transportation of school personnel, may it be by land, by air or by sea, parking fees, road tolls, non-commutable transportation allowances and other related expenses.

Training and seminar includes expenses incurred for participation/ attendance of school personnel to trainings and seminars. Supplies and materials, for the purpose of this study include projectors, LED TVs, textbooks and printers that were purchased by the implementing units to aid teacher instruction in addition to printed forms, cards, ledgers, journals, pencils, cartridge, brooms, paint brushes, nails, soaps, powder, inks, medical supplies, construction materials for instruction purposes as cited in the DECS Service Manual (2000).

Utilities and communication expenses, on the other hand, are payment for monthly bills of telephone, internet and electricity while general services are remuneration for janitorial and security services.

The cost for repairing and maintaining of school buildings and other structures, machinery and equipment and other property falls under repair and maintenance category.

Table 3 shows the descriptive statistics for utilization of school budget per pupil expenditure of the participating implementing units for school years 2012-2013 to 2014-2015 as seen on the financial reports submitted for this study.

Table 3

Descriptive Statistics for Per Pupil Expenditure of Sample Implementing Units in Philippine Peso (PhP)

Categories	SY 2012-2013				SY 2013-2014				SY 2014-2015			
	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
Travelling Expenses	6.54	54.19	25.94	18.11	5.14	126.61	38.04	50.94	3.69	15.87	11.03	4.63
Training and Seminar	20.34	50.29	31.93	13.68	10.11	54.62	30.97	17.62	9.76	128.72	54.71	45.33
Supplies and Materials	118.07	414.92	266.24	138.45	194.12	439.4	302.26	103.79	294.72	523.53	415.56	99.51
Utilities and Communication	95.51	239.81	156.31	52.38	102.85	270.14	188.93	64.57	112.7	296.79	205.65	80.18
General Services	83.60	111.79	95.95	10.47	84.47	136.65	117.15	21.68	68.73	158.42	114.06	33.79
Repair and Maintenance	7.51	64.67	41.91	21.51	9.43	155.72	63.02	66.21	1.33	136.45	71.63	63.42

For three years, implementing units have been spending the most for expenditures related to supplies and materials with an average of Php 328.02 per student. Schools have been investing on projectors and LED TVs that aid instruction as well as to integrate ICT in everyday lessons of teachers. In fact, in 2014 alone, School 5 purchased 11 LED TVs for this purpose. While on the same year, School 4 acquired 4 TV sets, an amplifier and 2 speakers using their school budget as reflected on their financial reports.

This shows that the strategic plan of the school which is the Annual Implementation Plan was followed in terms of the Curriculum Development category that includes the purchase, development and improvement of instructional materials used in the teaching and learning process. Looking at the allocated budget in the plan, it can be observed that participating implementing units allotted the highest amount in Curriculum Development and when actual utilization of school budget happened, the same expenditures to support the programs and projects for this category was funded the most.

Utilities and Communication Expenses and General Services ranked second and third based on the computation of the average spending for the school years included in the study. Utilities and Communication expenses amounted to an average of Php 156.31 in school year 2012-2013, Php 188.93 in school year 2013-2014 and Php 205.65 in school year 2014-2015 while General Expenses had an average of Php 95.95, Php 117.15 and Php 114.06 PPE from school years 2012-2013, 2013-2014 and 2014-2015 respectively.

This is due to the expenses under these categories were constantly paid monthly as these included remuneration for janitorial and security services to keep the school clean and conducive to learning, keep the students, school personnel and school properties safe and pay for monthly dues related to electricity, internet connection and telephone bills.

Utilities and communication expenses are necessary expenditures of the school in order to deliver the best quality of education to the students. However, participating

schools spend 19.6% more on utilities and communication than trainings and seminars of school personnel when the latter could have more potential in improving the performance of the students in the National Achievement Test since the teaching staff has direct and daily contact with the students inside the classroom.

Keeping the school buildings in its best state as well as maintaining the good condition of the school equipment and other properties ranked fourth in the priorities of the implementing units for schools years 2012-2013 to 2014-2015. The implementing units spent an average amount of Php 41.91 per pupil in school year 2012-2013, Php 63.02 per pupil in school year 2013-2014 and Php 71.63 per pupil in school year 2014-2015 for repair and maintenance of school building, equipments and other properties.

It can be presumed that schools paid close attention in keeping the school vicinity safe for the students and school personnel by assuring school buildings, properties and equipments were at its best shape.

School 3, in 2014 alone, spent a total of Php 70,417 of their school budget on repair of the property custodian room, school clinic and other furniture and fixtures as reflected on the monthly report of disbursement.

On the other hand, implementing units spent an average of Php 681,805.67 from school year 2012-2013 to 2014-2015 or per-pupil expenditure of Php 39.50 for trainings and seminars of school personnel. These trainings and seminars, as reported in the detailed financial reports of the implementing units, include non-Department of Education organized trainings and seminars which reached the schools through Department of Education advisories, international conferences related to action

research and specialization, school learning action cells (SLAC), In-Service Trainings (InSeT) every May and October of the year, and seminars conducted by both the division and regional offices to further enhance and update the content and pedagogy, as well as train them for administrative functions as many teachers do not only teach in the classrooms but also are designated to key positions in the office.

Travelling expenditures received the lowest spending as implementing units spent an average amount of Php 323,457.33 on the course of three school years. Expenses related to travel of the school personnel, may it be for a seminar or training or reimbursement of public vehicle fare of the disbursing officers, bookkeepers and liaison officers when they submit forms and reports to the Division Office or to a government agency fall under this financial category.

Allocation and Utilization of School Budget of the Sample

The Annual Implementation Plan is the school's strategic plan for one school year. This holds plans and projects, the process, how it will be monitored and the proposed budget for each. Ideally, the Annual Implementation Plan shall serve as the guide in the actual utilization of school budget and it must be re-structured yearly to address the needs which were not given enough focus during the previous years.

However, based on the documents submitted in the study, the Annual Implementation Plan of the sample implementing units in the course of three school years was found to be almost identical with a minimal increase in the proposed budget due to the idea that funding increases each year. Nonetheless, same projects were

included, same expenditures and proportions were observed even though the same results were obtained in schools' effectiveness and efficiency report.

Moreover, the average allocated budget per student and actual utilization per student in three school years can be observed in Table 4.

Table 4

Average Allocation and Utilization of School Budget of the Sample for Three School Years

Allocation of School Budget	Utilization of School Budget
Curriculum Development 36.5% per student allocation	Supplies and Materials 43.8% per student expenditure
Student Development 22.3% per student allocation	
Faculty Development 10.4% per student allocation	Training and Seminar 5.2% per student expenditure
Physical Facilities Development 3.6% per student allocation	Repair and Maintenance 7.8% per student expenditure
Administration and Management 27.1% per student allocation	Utilities and Communication 24.8% per student expenditure
	General Services 14.8% per student expenditure
	Travelling Expenses 3.5% per student expenditure

Looking at the data, it can be inferred that allocation and utilization of school budget differs, when ideally, the two must be equal at the end of the school year. It can be assumed that in the process of actual utilization of school budget the school leadership team tends to change the manner of spending the financial resources.

One example, the average allocation for faculty development in the Annual Implementation Plan was 10.4%, however, during the actual spending in three school years, the sample implementing units utilized only 5.2% of the average per student expenditure for trainings and seminars of the school personnel. The remaining 5.2% of the allocated budget for professional growth and development of teachers was added to other financial categories.

Likewise, based on the Annual Implementation Plan of the school, only 3.6% of the student allocation for three school years was planned to be used to improve and maintain school facilities. But this was not the case when actual utilization of school budget was recorded to be 7.8% per student expenditure. Based on the submitted financial reports of the implementing units, this amount was used for minor repairs and maintenance of school facilities.

Travelling expenses is subsumed in each category in the allocation of school budget. No specific category for travelling expenses was indicated in the Annual Implementation Plan of the schools.

This part of this chapter shows that allocation as reflected in the Annual Implementation Plan of the implementing units did not serve as the basis of the utilization of the school budget. Though some programs in the strategic plan of the

schools was funded and implemented, schools tend to deviate from the budget set from the beginning of the school year.

Practice such as this would lead to unimplemented programs and projects at the end of the school year. Moreover, Annual Implementation Plan would only be done and submitted to the Division Office out of compliance but not because it shows the school's plans toward the improvement of the academic institution.

Description of National Achievement Test Results of the Sample

Research question number 2 aimed to describe student performance in terms of Mean Percentage Score (MPS) of the participating implementing units in the National Achievement Test during school years 2012-2013 to 2014-2015. The following paragraphs and tables discuss the performance of the five implementing units included in this study in terms of their Mean Percentage Score in each component of the National Achievement Test as well as the overall Mean Percentage Score as classified under DepEd Order No. 72, s. 2011.

Table 5

Descriptive Statistics for Mean Percentage Score in National Achievement Test of Sample Implementing Units

Variables	SY 2012-2013				SY 2013-2014				SY 2014-2015			
	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
Filipino	57.83	64.32	61.52	2.51	36.66	62.84	55.98	11	58.7	61.76	59.96	1.39
English	48.4	50.97	49.53	1.28	53.14	54.37	53.65	0.46	37.86	41.15	39.55	1.28
Mathematics	37.35	52.35	42.61	6.12	38.38	67.52	50.63	10.77	33.26	41.11	37.28	3.56
Science	32.33	39.03	35.98	2.67	38.33	41.9	40.16	1.47	37.89	41.77	40.01	1.79
AP	58.42	68.38	65.19	3.91	54.09	62.96	60.21	3.55	45.8	48.97	47.11	1.47
CTST	34.76	48.47	38.23	5.77	45.63	50.93	47.62	2.41	38.63	42.43	40.44	1.53
Overall	46.59	52.02	49.48	2.6	47.51	56.87	51.48	3.79	41.89	46.42	44.25	1.88

Table 5 shows the descriptive statistics for National Achievement Test results of the sample implementing units for school years 2012-2013 to 2014-2015.

During school year 2012-2013, English has the least spread out scores among the sample implementing units. Based on the data in Table 5, majority of the scores in English are within the range 48.25 to 50.81.

In contrast, Mathematics has the largest standard deviation during school year 2012-2013 with 6.12. Mean Percentage Score in Mathematics of sample implementing units showed that most of the Mean Percentage Scores were found in between 36.49 to 48.73, a much wider range than that of English.

During school year 2013-2014, despite the increase in the Mean Percentage Score in Mathematics, sample implementing units continued to show large differences in the individual Mean Percentage Scores as the standard deviation increased to 10.77 from 6.12 in the previous school year. The computed standard deviation suggests that the Mean Percentage Scores of the sample during school year 2013-2014 were more spread out as compared to the Mean Percentage Scores during school year 2012-2013.

Average Mean Percentage Score in Filipino, on the other hand, during SY 2013-2014 plummeted down to 55.98 from the previous year's 61.52. In addition, the individual Mean Percentage Scores in Filipino during this school year were more spread out in which four were found within a wide range of 44.98-66.98 and the lowest Mean Percentage Score among the sample implementing units was even below the aforementioned range.

Sample implementing units continued to perform almost equally in English during SY 2013-2014.

Table 5 also shows that during school year 2014-2015, all of the components in National Achievement Test, including the overall Mean Percentage Score, illustrated a decline except Filipino which happened to manage to improve its Mean Percentage Score by 3.98%. Standard deviation of this component also suggests that the Mean Percentage Scores of the sample are found to be in close range with one another.

Likewise, Mean Percentage Scores in all of the components except Mathematics of the sample are found to be less spread out as the standard deviation, which is less than 2, suggests close range of the values during school year 2014-2015. While the

Mean Percentage Scores in Mathematics were more spread out than any of the components in National Achievement Test during this school year as the computed value of standard deviation in Mathematics was 3.56.

In school year 2010-2011, Department of Education released a descriptive interpretation of the Mean Percentage Score of the National Achievement Test. Deped Order No. 72, s. 2011 classified Mean Percentage Score as Superior, Upper Average, Lower Average and Poor. In which Mean Percentage Scores ranging from 76-100% were classified as Superior, 51-75% as Upper Average, 26-50% as Lower Average and 1-25% as Poor.

Table 6 gives an idea about the interpretation of the Mean Percentage Score in National Achievement Test of the sample based on Deped Order No. 72, s. 2011.

Table 6

Descriptive Interpretation of Mean Percentage Score of the Implementing Units in the National Achievement Test for School Year 2012-2013

Implementing Unit	Filipino	English	Math	Science	AP	CTST	Overall
School 1	Upper Average	Lower Average	Lower Average	Lower Average	Upper Average	Lower Average	Lower Average
School 2	Upper Average	Lower Average	Lower Average	Lower Average	Upper Average	Lower Average	Lower Average
School 3	Upper Average	Lower Average	Upper Average	Lower Average	Upper Average	Lower Average	Upper Average
School 4	Upper Average	Lower Average	Lower Average	Lower Average	Upper Average	Lower Average	Lower Average
School 5	Upper Average	Lower Average	Lower Average	Lower Average	Upper Average	Lower Average	Upper Average

Mean Percentage Scores of sample in English, Science and CTST were classified as Lower Average as these fell within the range of 26-50% while Mean Percentage Scores in Filipino and AP were classified as Upper Average.

In Mathematics, only School 3's Mean Percentage Score was classified as Upper Average while the rest of the sample had Lower Average. For the overall mean percentage score, 3 out of the 5 were classified as Lower Average while School 3 and School 5 achieved an overall MPS described as Upper Average.

Table 7

Descriptive Interpretation of Mean Percentage Score of the Implementing Units in the National Achievement Test for School Year 2013-2014

Implementing Unit	Filipino	English	Math	Science	AP	CTST	Overall
School 1	Lower Average	Upper Average	Lower Average	Lower Average	Upper Average	Lower Average	Lower Average
School 2	Upper Average	Upper Average	Lower Average	Lower Average	Upper Average	Lower Average	Upper Average
School 3	Upper Average	Upper Average	Upper Average	Lower Average	Upper Average	Lower Average	Upper Average
School 4	Upper Average	Upper Average	Lower Average	Lower Average	Upper Average	Lower Average	Lower Average
School 5	Upper Average	Upper Average	Upper Average	Lower Average	Upper Average	Lower Average	Upper Average

Table 7 gives an idea that the Mean Percentage Scores of the sample in English and AP were classified as Upper Average during the National Achievement Test in school year 2013-2014 while Science and CTST remained classified as Lower Average.

Among the sample, School 1 was the only implementing unit that achieved a Mean Percentage Score described as Lower Average in Filipino while the Mean Percentage Scores of the remaining implementing units were classified as Upper Average.

Whereas, in Mathematics, only School 3 and School 5 attained an Upper Average Mean Percentage Score while the rest got Lower Average.

In terms of the overall performance during school year 2013-2014, School 2, School 3 and School 5 achieved Upper Average Mean Percentage Score whereas School 1 and School 4 got Lower Average Mean Percentage Score.

Table 8 shows that among all the components of National Achievement Test during school year 2014-2015, only Filipino achieved a Mean Percentage Score that can be classified as Upper Average, while the remaining components and the overall performance were classified as Lower Average, with a mean percentage score ranging from 26%-50%.

Table 8

Descriptive Interpretation of Mean Percentage Score of the Implementing Units in the National Achievement Test for School Year 2014-2015

Implementing Unit	Filipino	English	Math	Science	AP	CTST	Overall
School 1	Upper Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average
School 2	Upper Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average
School 3	Upper Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average
School 4	Upper Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average
School 5	Upper Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average	Lower Average

The third research question that this study aimed to address is how the allocation and the utilization of school budget was able to affect the performance of the sample in the National Achievement Test.

Relationship between Allocation and the National Achievement Test Results

Table 9 shows the correlation matrix for the relationship between the per student allocation of the school budget and the Mean Percentage Score of the sample in the National Achievement Test during SY 2012-2013.

Table 9

Correlation Matrix for the Relationship Between Per Student Allocation and NAT Results for School Year 2012-2013

Categories	FILIPINO		ENGLISH		MATHEMATICS		SCIENCE		AP		CTST		OVERALL	
	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value
Student Development	-0.060	0.920	-0.291	0.630	-0.491	0.400	-0.059	0.930	0.264	0.670	-0.117	0.850	-0.414	0.490
Faculty Development	-0.310	0.610	-0.171	0.780	-0.533	0.350	-0.231	0.710	-0.092	0.880	0.394	0.510	-0.360	0.550
Curriculum Development	0.341	0.570	0.632	0.250	0.170	0.780	0.432	0.470	0.257	0.680	0.990	0.001	0.546	0.340
Physical Facilities Development	-0.519	0.370	-0.378	0.530	0.084	0.890	-0.552	0.340	-0.715	0.170	-0.526	0.360	-0.270	0.660
Administration and Management	-0.042	0.950	-0.250	0.680	0.607	0.280	-0.156	0.800	-0.167	0.790	-0.487	0.410	0.235	0.700

During school year 2012-2013, the student development category was found to have negligible to low correlation with the Mean Percentage Score in the National Achievement Test with r values lower than 0.5.

Whereas, Mathematics was observed to have moderate negative correlation with faculty development. This implies that smaller cut in the per student allocation for faculty development, higher mean percentage score in the Mathematics can be observed.

The same situation can be observed between the per student allocation for physical facilities development and the Mean Percentage Scores in Filipino, Science and Critical Thinking Skills Test while curriculum development and administration and management were found to have moderate positive correlation with English and Mathematics respectively.

However, despite the moderate correlation between the said variables, significant relationship can only be observed between per student allocation in curriculum development and the Mean Percentage Score in Critical Thinking Skills Test. In fact, an r value of 0.99 gives an r^2 value of 0.9801 between the two variables. This denotes that 98.01% of the variation in the Mean Percentage Score in Critical Thinking Skills Test can be accounted to the manner of how the sample implementing units allocated their proposed budget for curriculum development.

This gives an idea that as schools pay close attention to programs with the end goal of improving the instructional materials used by the teachers in the delivery of the lessons, the more teachers are able to help students to think critically.

On the following year, Filipino was found to have high negative correlation and a significant relationship with per student allocation for student development as the reported p -value is less than 0.05.

Table 10

Correlation Matrix for the Relationship Between Per Student Allocation and NAT Results for School Year 2012-2013

Categories	FILIPINO		ENGLISH		MATHEMATICS		SCIENCE		AP		CTST		OVERALL	
	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value
Student Development	-0.936	0.020	-0.065	0.920	-0.245	0.690	0.305	0.620	0.226	0.710	-0.343	0.570	-0.575	0.310
Faculty Development	-0.650	0.230	-0.030	0.960	-0.128	0.840	-0.100	0.870	0.235	0.700	0.150	0.810	-0.358	0.550
Curriculum Development	0.328	0.590	0.063	0.920	0.100	0.870	-0.710	0.180	0.027	0.970	0.771	0.130	0.231	0.710
Physical Facilities Development	0.242	0.690	0.648	0.240	-0.550	0.340	-0.264	0.670	-0.828	0.080	-0.442	0.460	-0.332	0.580
Administration and Management	0.538	0.350	-0.034	0.960	0.348	0.570	0.372	0.540	-0.089	0.890	-0.066	0.920	0.470	0.420

This relationship denotes that low Mean Percentage Scores in Filipino are observed in schools allotting big cuts from the school budget for programs and projects concerning student development. With a value for r^2 of 0.88, it can be deduced that 88% of the variation in the Mean Percentage Scores of the implementing units in Filipino can be accounted to how the schools allotted their school budget on student development.

While, high negative correlation is found to exist between per student allocation in curriculum development and the Mean Percentage Score in Science, physical facilities development and AP, administration and management and AP.

Whereas, the mean percentage score of the critical thinking skills test is found to have high positive correlation with the per student allocation in curriculum development. However, despite the high value of r and an interpretation of having high correlation existing between the variables, a p -value greater than 0.05 signifies that there is no significant relationship between the variables.

On school year 2014-2015, none of the categories in the Annual Implementation Plan was found to have significant relationship with the Mean Percentage Scores in the National Achievement Test. This means that the allocation of school budget as reflected on the school's strategic plan do not significantly affect the performance of the students in the National Achievement Test.

With this, it can be said that if implementing units dutifully followed the Annual Implementation Plan for school year 2014-2015, the allotted budget for each program and project, the strategic plan of the school leadership team on how to manage the financial resources of the school did not necessarily affect the performance of the student in the National Achievement Test.

Table 11

Correlation Matrix for the Relationship Between Per Student Allocation and NAT Results for School Year 2014-2015

Categories	FILIPINO		ENGLISH		MATHEMATICS		SCIENCE		AP		CTST		OVERALL	
	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value
Student Development	-0.308	0.610	-0.316	0.600	-0.594	0.290	0.390	0.520	-0.210	0.740	-0.344	0.570	-0.086	0.890
Faculty Development	-0.275	0.650	0.394	0.510	-0.317	0.600	0.837	0.080	-0.155	0.800	-0.123	0.840	0.192	0.760
Curriculum Development	0.460	0.440	0.755	0.140	0.619	0.270	0.130	0.830	0.467	0.430	0.425	0.480	0.644	0.240
Physical Facilities Development	-0.314	0.610	0.239	0.700	-0.050	0.940	0.265	0.670	-0.335	0.580	-0.026	0.970	-0.288	0.640
Administration and Management	-0.127	0.840	-0.192	0.760	0.037	0.950	-0.320	0.600	-0.209	0.740	-0.037	0.950	-0.397	0.510

Nonetheless, the Mean Percentage Score in Science was found to have high positive correlation with faculty development, with a p-value of 0.08 that is greater than

0.05. Despite the relationship being not significant, the r^2 signifies that 70% of the variation in the Mean Percentage Score in Science can be accounted to how schools manage their budget to allocate funds for programs and projects concerning the growth of the teaching personnel.

Based on the presented allocation of school budget on Tables 8 -10, it is understood that though per student allocation for curriculum development was found to have significant relationship with Critical Thinking Skills Test and per student allocation for student development was found to have significant relationship with Filipino, the overall performance of the sample implementing units in the course of three school years have no significant relationship with how the schools allotted their school budget in the five categories of the Annual Implementation Plan.

With the data presented, it can be assumed schools do not effectively and efficiently manage their available school financial resources and allot sufficient amount to programs and projects that have the potential in improving the performance of the students in the National Achievement Test.

In fact, looking at the Annual Implementation Plan of the participating schools, the previous is almost identical with the Annual Implementation Plan submitted in the following school year, with only ten thousand or more added to the proposed budget due to the assumption that funding increases yearly. However, priority areas are still the same, programs and projects are still the same. It seems schools do not base their strategic plan for the new school year on their performance in the previous years and

submission of Annual Implementation Plan was more for compliance than a strategy in improving school performance.

Relationship between Utilization and the National Achievement Test Results

Tables 12-14 show the correlation matrix for the relationship between per pupil expenditure for each financial category and the mean percentage score in the National Achievement Test of the sample implementing units.

Table 12 shows that there is a high positive correlation between per pupil expenditure in supplies and materials and the overall Mean Percentage Score. Moreover, 59% of the variation, given by r^2 equal to 0.59, in the overall performance of the sample implementing units can be accounted to how they utilized their school budget in purchasing and acquiring supplies and materials needed in the school. However, despite the high positive correlation between the two variables, the p-value shows that the existing relationship is not significant.

Table 12

Correlation Matrix for the Relationship Between Per Pupil Expenditure and NAT Results for School Year 2012-2013

Categories	FILIPINO		ENGLISH		MATHEMATICS		SCIENCE		AP		CTST		OVERALL	
	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value
Travelling Expenses	-0.039	0.950	-0.372	0.540	0.655	0.230	-0.177	0.780	-0.075	0.900	-0.519	0.370	0.243	0.690
Training and Seminar	-0.554	0.330	0.018	0.980	-0.351	0.560	-0.434	0.460	-0.719	0.170	0.406	0.500	-0.275	0.460
Supplies and Materials	0.147	0.810	0.089	0.890	0.804	0.100	0.106	0.870	0.152	0.810	0.690	0.200	0.766	0.860
Utilities and Communication	-0.277	0.650	-0.593	0.290	0.718	0.170	-0.402	0.500	-0.145	0.820	-0.052	0.930	0.312	0.740
General Services	-0.424	0.480	-0.683	0.200	0.626	0.230	-0.542	0.340	-0.315	0.610	-0.155	0.800	0.172	0.870
Repair and Maintenance	-0.633	0.250	-0.743	0.150	0.396	0.510	-0.706	0.180	-0.490	0.400	0.025	0.970	0.001	0.760

In fact, Mean Percentage Scores in all subject areas and the utilization of school budget per category during school year 2012-2013 are found to have no existing significant relationship.

Nevertheless, high positive correlation is found to exist between Mathematics and per pupil expenditure in supplies and materials, as well as with utilities and communication. While high Mean Percentage Scores in Araling Panlipunan and English are observed in schools that utilized small amount from the school budget on training and seminar and repair and maintenance expenses respectively.

On the other hand, in school year 2013-2014 when 3 implementing units were classified as Upper Average, Critical Thinking Skills Test was found to have high correlation and significant relationship with both training and seminar expenses and supplies and materials expenses.

It can be inferred that since training and seminar expenses and supplies and materials expenses are both categories which are beneficial in the classroom setting, instructional expenditures such as these help improve the students' critical thinking. The more schools spend on instructional materials and teachers attending seminars on professional growth and development, the better scores student received in the National Achievement Test during this school year.

This findings support the notion made by McCoy (2014) that investment in professional growth of teachers produce great increase in student achievement. Looking at the value of r between Critical Thinking Skills Test and training and seminar of teachers which is 0.940, Hinkle (1998) interprets this value as very high positive

correlation. This means that the higher budget is utilized in training and seminars of teachers, the higher is the Mean Percentage Score of the students in the Critical Thinking Skills Test component in the National Achievement Test.

Likewise, the same relationship was observed between Critical Thinking Skills Test and supplies and materials.

Sample implementing units have been investing on ICT devices as observed from their financial reports. With effective implementation of technology inside the classroom, improved academic performance can be achieved (Grinager, 2006). With 21st century learners, it is only appropriate to improve the instructional materials used by the teachers in the delivery of the lesson.

Table 13

Correlation Matrix for the Relationship Between Per Pupil Expenditure and NAT Results for School Year 2013-2014

Categories	FILIPINO		ENGLISH		MATHEMATICS		SCIENCE		AP		CTST		OVERALL	
	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value	r	p-value
Travelling Expenses	0.371	0.540	-0.170	0.780	0.745	0.140	0.621	0.260	0.228	0.710	0.315	0.610	0.698	0.190
Training and Seminar	0.729	0.160	0.008	0.990	0.509	0.380	-0.429	0.470	0.058	0.930	0.940	0.020	0.696	0.190
Supplies and Materials	0.508	0.380	-0.025	0.970	0.763	0.130	0.082	0.900	0.186	0.760	0.890	0.040	0.781	0.120
Utilities and Communication	-0.294	0.630	0.166	0.790	0.487	0.400	0.695	0.190	0.074	0.910	0.229	0.710	0.216	0.730
General Services	-0.415	0.490	0.128	0.840	0.439	0.460	0.392	0.510	0.193	0.760	0.497	0.390	0.143	0.820
Repair and Maintenance	0.588	0.300	-0.374	0.540	0.913	0.030	0.164	0.790	0.490	0.400	0.878	0.050	0.937	0.020

Table 13 displays the significant relationship between the overall mean percentage scores of the sample implementing units and the repair and maintenance expenses.

With a value of r of 0.937 and r^2 value of 0.878, it can be inferred that 87.8% of the variation in the Mean Percentage Score of the sample can be accounted to how the implementing units utilize their school budget for repair and maintenance expenses. Moreover, one can assume that students generally perform better when the school facilities are at its best and the school environment is well maintained making it more conducive to learning. The learning environment has direct effect on student learning (McCombs, 2003). The more conducive to learning the school environment is and the more functional the school facilities are, the better student performance can be observed.

On school year 2014-2015, the school year when the average Mean Percentage Scores of the participating implementing units plummeted from 51.48 to 44.24, financial categories such as supplies and materials expenses and general services expenses were found to have significant relationship with Filipino and Mathematics. While repair and maintenance expenses category was found to have significant relationship with Critical Thinking Skills Test scores.

While for the rest of the components, though there was high correlation between the mean percentage scores and per pupil expenditure for each category, no significant relationship can be concluded.

Table 14 reveals that 81.4% of the variation in the Mean Percentage Scores in Filipino can be accounted to the manner of how participating implementing units utilized their school budget to purchase/acquire supplies and materials to aid the teaching and learning process as well as to make the classrooms more conducive to learning.

With an r value of 0.902, it can be interpreted as high positive correlation. The interpretation gives an idea that during this school year, high Mean Percentage Scores in Filipino can be observed in schools that spent more on supplies and materials. Moreover, a p -value less than 0.05 denotes that the relationship between the Mean Percentage Score in Filipino and supplies and materials expenses category is significant.

Table 14

Correlation Matrix for the Relationship Between Per Pupil Expenditure and NAT Results for School Year 2014-2015

Categories	FILIPINO		ENGLISH		MATHEMATICS		SCIENCE		AP		CTST		OVERALL	
	r	p -value	r	p -value	r	p -value	r	p -value	r	p -value	r	p -value	r	p -value
Travelling Expenses	-0.125	0.840	-0.377	0.530	-0.217	0.730	-0.069	0.910	-0.122	0.850	0.037	0.950	-0.273	0.660
Training and Seminar	0.839	0.080	0.259	0.670	0.832	0.080	-0.472	0.420	0.804	0.100	0.859	0.060	0.621	0.260
Supplies and Materials	0.902	0.040	0.273	0.660	0.930	0.020	-0.663	0.220	0.833	0.080	0.738	0.150	0.648	0.240
Utilities and Communication	0.194	0.750	0.264	0.670	0.199	0.750	0.259	0.670	0.240	0.700	0.505	0.390	0.257	0.680
General Services	0.835	0.080	0.425	0.480	0.934	0.020	-0.468	0.420	0.780	0.120	0.834	0.080	0.636	0.250
Repair and Maintenance	0.713	0.180	0.754	0.140	0.870	0.060	0.001	1.000	0.712	0.180	0.885	0.050	0.746	0.150

Likewise, expenses relative to supplies and materials are found to have significant relationship with Mathematics as the value of the computed r^2 is equal to 0.8649 that signifies 86.5% of the variation in the Mean Percentage Score in Mathematics can be accounted to the supplies and materials expenses of the school. This means that the implementing units with high Mean Percentage Score in Mathematics spent more on supplies and materials during this school year.

Looking at the high correlation between Mathematics and supplies and materials expenses category for three consecutive school years, it can be inferred that the acquisition of instructional materials such as the ICT devices like the projectors and LED televisions and other instructional materials help Mathematics teachers make their lessons more comprehensible to their students with the evidence of higher mean scores in Mathematics.

In school year 2012-2013, School 3 spent PhP 412.92 per student for supplies and materials expenses and this was observed to yield a Mean Percentage Score of 52.35% in Mathematics. While School 1 utilized PhP 182.59 of the total amount spent per student, the lowest budget for supplies and materials expenses among the sample implementing units, and this yielded a Lower Average performance in the National Achievement Test with a numerical value of 37.35. In fact, School 1's Mean Percentage Score in Mathematics during this school year was the lowest among the participating schools in the study.

Likewise, during school year 2013-2014, School 3 spent PhP 439.40 to buy instructional materials, tools and equipment for laboratory and Physical Education lessons. In turn, this made School 3 achieve the highest Mean Percentage Score in Mathematics, not only among the sample implementing units but also among the secondary schools in the Division of Antipolo City. While School 5 utilized PhP 378.62 of the total amount per student on supplies and materials, the second largest amount for this category next to School 3. As a result, School 5 recorded the second highest Mean Percentage Score in Mathematics during this school year with 52.69%.

Mathematics was also found to have significant relationship with general services expenditures during school year 2014-2015 as the p-value was found to be less than 0.05 and a value of r^2 equal to 0.872. These numbers signify that 87.2% of the mean percentage scores in Mathematics can be accounted to the utilization of school budget relative to the remuneration of services rendered by security guards and administrative aides.

With this, one can presume that students are able to perform better in Mathematics when they feel safe in the school. This supports the idea of Schneider (2002) that quiet, comfortable learning environment positively affect learning. Moreover, students learn best when they have positive attitudes to their school due to the good disciplinary climate (Ma and Klinger, 2000).

Critical Thinking Skills Test was also found to be correlated with repair and maintenance expenditure. The significant relationship with the two variables shows that 78.3% of the variation in the Mean Percentage Scores of the implementing units can be accounted to the utilized per pupil expenditure relative to minor repairs and maintenance of school facilities.

The value of r which is 0.885 indicates the high correlation between the variables. This means that as schools spent more amount on repair and maintenance of school facilities, higher Mean Percentage Scores in Critical Thinking Skills Test can be observed as well. In fact, during this year, School 3 utilized PhP 136.45 per student for repair and maintenance expenditures while School 2 only utilized PhP 1.33 per student

for this category. This manner of spending resulted to a Mean Percentage Score of 42.43 in Critical Thinking Skills Test for School 3 and 38.63 for School 2.

The data signify that students are able to maximize their critical thinking ability in a conducive to learning environment where available facilities are fully functional and available for them to use.

This present study found out that among the categories reflected in the Annual Implementation Plan of the sample implementing units, the one that received the highest budget allocation from school year 2012-2013 to 2014-2015 was curriculum development that deals with programs relating to acquisition of instructional materials that aid teacher instruction during the teaching and learning process.

Figure 2 shows that curriculum development held 36.5% of the average budget allocation per student of the sample for three school years while administration and management, the component of the Annual Implementation Plan that is concerned with monthly payment for utilities and communication bills, remuneration for janitorial and security services and purchase of school furniture and other school-related expenses which do not directly impact instruction comprised the 27.1% of the average per student allocation.

Whereas, programs that aimed to improve student performance academically was allotted an average of PhP 183.89 or 22.3% of the average allocation per student in three school years. Staff development and physical facilities development was assigned with 10.4% and 3.6% of the average per student allocation respectively.

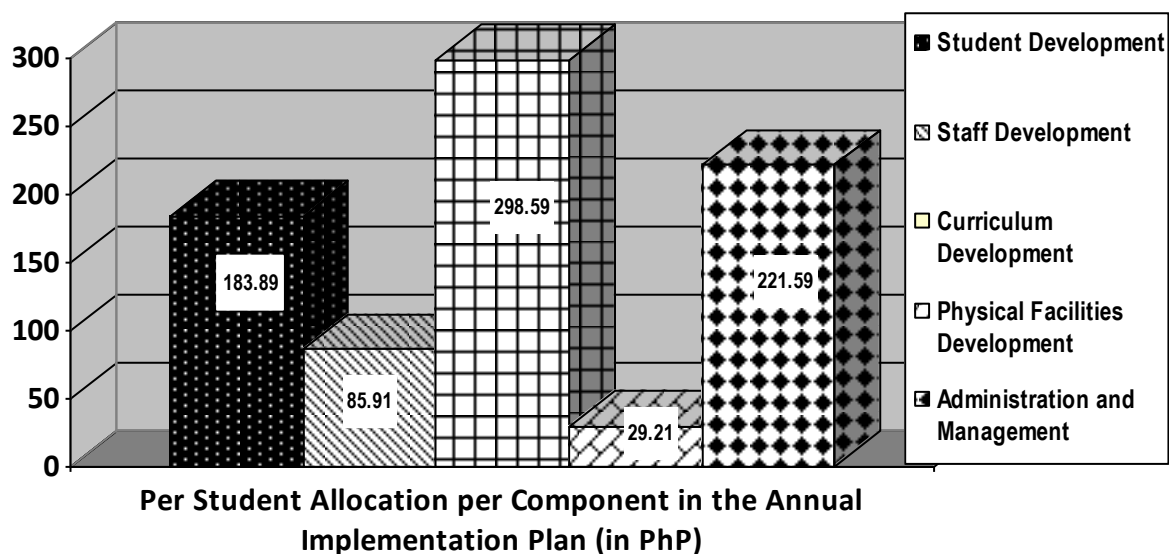


Figure 2. Average per student allocation of the sample implementing units in three school years.

During the same scope of the study, the sample implementing units were found to utilize 43.8% of the total amount spent per student for one school year on supplies and materials. This financial expenditure deals with the amount spent on instructional materials used by both teachers and the students, as well as materials found inside the classroom. This reveals that based on the average percentage for three school years, the sample implementing units prioritized acquisition of materials that directly affect instruction.

Figure 3 displays the average utilization of school budget per student for three school years. The financial category that received the lowest budget utilization was the travelling expenses as this was mainly used to reimburse public utility vehicle fare of school personnel when they go out of school on official business. This comprised 3.5% of the average per pupil expenditure or PhP 25.00 of PhP 743.75 per student.

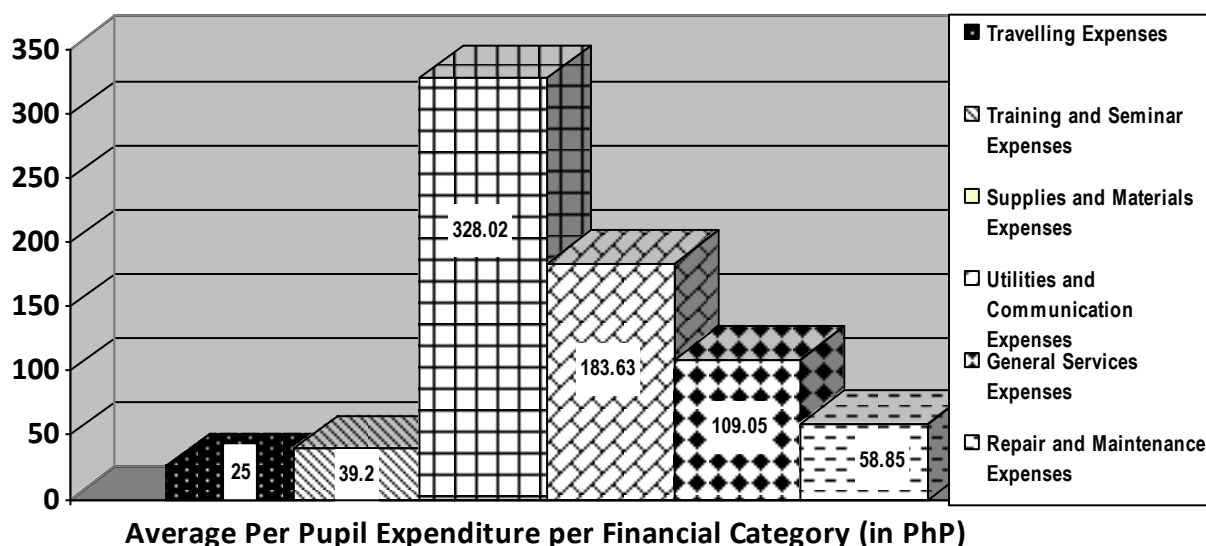


Figure 3. Average per pupil expenditure of the sample implementing units in three school years.

While only 5.2% of the average per pupil expenditure was utilized on training and seminar expenses of school personnel. This is equal to PhP 39.20 per student in one school year. This could be interpreted as a small amount to be utilized on enhancing the skills of the factor that has the greatest potential in improving the performance of the students in the National Achievement Test, the teachers.

Factors that do not directly affect instruction made up the 47.3% of the total amount spent per student in the course of three school years. Of which, 24.7% was used to pay for the actual usage of electricity, water, telephone and internet as reflected in the monthly bills. Payments for security guards and janitors took the 14.7% or an average of PhP 109.05 per student in three school years. While PhP 58.85 per student was utilized to pay for the amount needed for minor repair and maintenance of school facilities.

Gathered data also show that there was a mismatch in the budget reflected in the Annual Implementation Plan of the sample implementing units and the actual utilization of school budget and this resulted to inconsistent student performance in the National Achievement Test. This observation means that the strategic plan of the school failed to serve its purpose to guide the implementation of the programs in a school year.

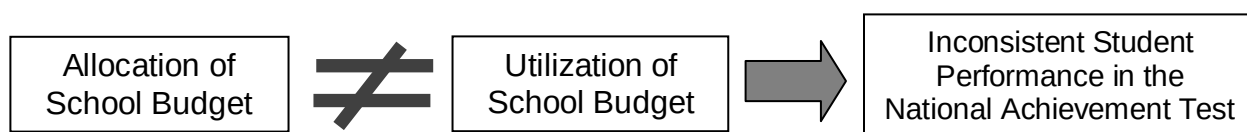


Figure 4. Allocation and utilization of school budget of the sample implementing units.

Though schools allotted 58.8% of the average per student allocation on curriculum and student development, only 43.8% of the entire budget was utilized for the same purpose. Whereas, utilized budget for utilities and communication, together with general services expenses, exceeded the allotted 27.1% of the proposed per student allocation for three school years. The same pattern was observed in repair and maintenance expenses and the allocated per student amount for physical facilities development. Although the school planning team allotted only 3.6% for minor repair and maintenance of school facilities, in reality, the sample utilized more than twice its amount with 7.8% of the average amount spend for each student in three years.

What's worse is that the amount of money spent to cover the insufficient amounts of other expenditure was taken from the budget allotted for faculty development. Schools having a good teacher with fully developed professional skills and personality in a larger class size are better off than a poor teacher in a smaller class size. We can never go wrong in investing on faculty development. However, the percentage from the

budget utilized for trainings and seminars of the teachers was found to be only half of what was initially allotted.

This study acknowledges that Annual Implementation Plan was structured with improved student performance as the end goal in the mind of the school planning team. More so, this study also acknowledges the fact that school can still deviate from the Annual Implementation Plan when needs arise; however, it does need to turn 180 degrees from what was initially planned. With the current practice in the City Schools Division, it is observed that the performance of the students in the National Achievement seemed to fluctuate as the allocation and utilization of school budget continued to be unequal.

This can be accounted to the unimplemented programs and projects in one category in the Annual Implementation Plan due to lack of school budget as it is taken out to cover how much was needed in another category due to overspending.

Figure 5 displays the trend of utilization and its effect on the performance of the students in the National Achievement Test.

Two out of the six financial categories were found to negatively correlate with student performance in the National Achievement Test: travelling expenses and utilities and communication expenses. The figure shows that as the implementing units increased the amount spent in these two categories, low performance in the National Achievement Test can be observed.

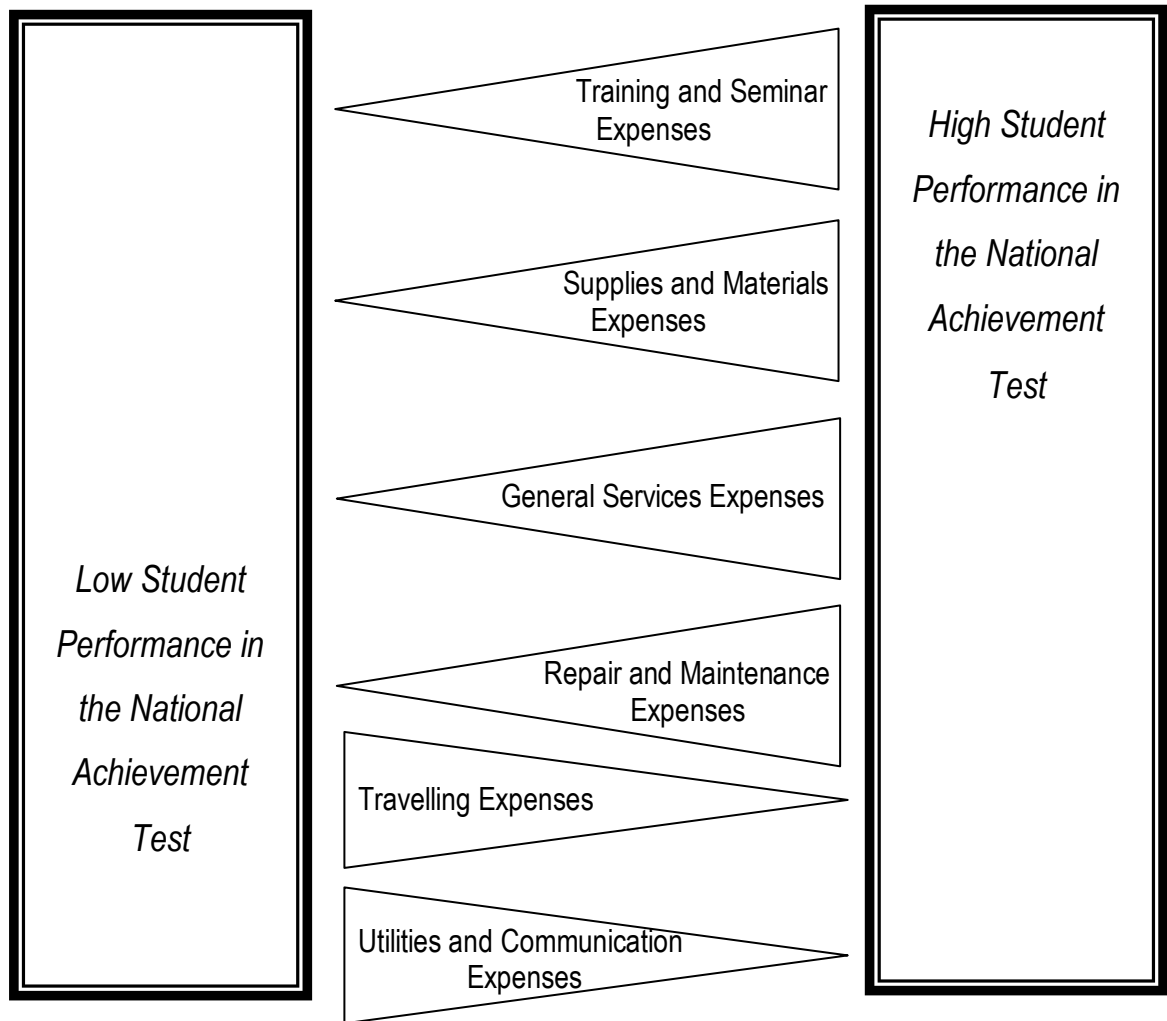


Figure 5. Trends in the utilization of school budget of the sample implementing units.

Whereas, positive correlation can be observed between student performance in the National Achievement Test and the following categories: training and seminar expenses; supplies and materials expenses; general services expenses; and repair and maintenance expenses.

This trend denotes that as the utilization of school budget increased in the aforementioned categories, high student performance in the National Achievement Test can be observed.

Inputs to Policy Formulation

In light of the trend of gathered data for the study, the following inputs are drawn together for the policy recommendation regarding utilization of school budget in City Schools Division:

Policy 1: Disparity in the allocation and utilization of school budget. Annual Implementation Plan is a strategic plan that contains the programs and projects of the school for one whole year. It also includes how to monitor each program and the tentative budget allotted for the implementation.

Ideally, Annual Implementation Plan serves as the guide in the utilization of school budget; it determines how to properly spend the available financial resources in order to reach the goal of the school at the end of each school year.

However, this study found that there was a disparity between the allocation and utilization of school budget as reflected from the documents submitted by the sample implementing units for the study.

The current study reveals that the sample implementing units tend to deviate from their Annual Implementation Plan and though this study acknowledges that it happens most of the time in order to address the needs of the schools, an about face from the Annual Implementation Plan seemed to show that a problem existed in the planning process of the school.

Despite the increasing funds available to the school each year, mismatch in the allocation and utilization of school budget was observed to produce fluctuating performance of the sample implementing units in the National Achievement Test. In

fact, the average Mean Percentage Scores of the sample from school year 2012-2013 to 2014-2015 are as follows: 49.48; 51.48; and 44.25.

Though an increase was observed in school year 2013-2014, the Mean Percentage Score of the sample plummeted 7.23 percentage points in school year 2014-2015.

Imbalanced allocation and utilization of school funds resulted to inconsistent student performance in the National Achievement Test. This study therefore assumes that if the deviation factor between allocation and utilization is maintained to a small value, it will result to improved student performance in the National Achievement Test.

With that, Figure 6 tells the factors that could possibly reconcile the disparity between allocation and utilization of school budget. The figure is based on the analysis after examining the Annual Implementation Plan and financial reports of the sample implementing units.

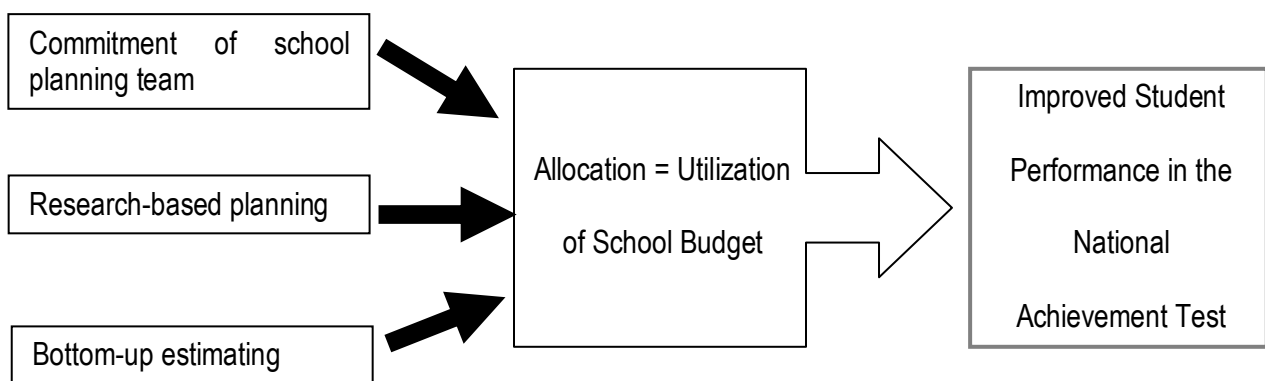


Figure 6. Factors to reconcile the mismatch between allocation and utilization of school budget to improve student performance in NAT.

Commitment of school planning team in constructing the Annual Implementation Plan. The Annual Implementation Plan of the sample reveals that no major changes had been done by the school planning team for three consecutive school years. The Annual Implementation Plan in school year 2012- 2013 was the same strategic plan submitted in the succeeding years with minimal changes in the proposed budget per program.

The target or goal for the school year seemed to be unchanged as well, implying that the schools neither improved nor worsen.

Spending has been a major part of addressing the needs of the school. The planning team has, more or less, an idea of which among the programs take most of the school budget but do not contribute in improving student performance in the National Achievement Test. The budget for these expenditures must be limited in the next school year. Likewise, budget allocation for expenditures known to help improve student performance, such as curriculum and faculty development, must be increased.

School 1 in school year 2013-2014 allotted 76% of its proposed per student allocation on student and curriculum development, however utilized only 36% of its per pupil expenditure on supplies and materials. This practice resulted to a Mean Percentage Score of 47.51. It is apparent that there was a problem with allocation and utilization but on the following year, the same practice has been implemented by School 1. It allocated 77% of the allocation per student on the same categories yet utilized only 29% of per pupil expenditure on supplies and materials. Again, this practice yielded to a Mean Percentage Score of 43.93.

Research-based planning. Allocation of available but limited school budget must be given to expenditures that have the most potential in improving student performance.

There are available researches that revealed factors that affect how students perform in schools. Creating effective curriculum, quality teaching, good facilities, intervention programs and reducing class size were observed to improve academic performance (Baker et al, 2010; McCoy, 2014; Odden and Picus, 2008).

As such, school planning team must be able to formulate effective and efficient school programs and allocate only the necessary amount for its implementation. In addition, schools should also spend more on expenditures that directly affect instruction such as faculty and curriculum development.

McCombs (2003) posited that the learning environment has direct impact to student learning. Clean and conducive to learning classrooms with proper ventilation and lighting have positive effect to student performance. However, School 5 failed to include budget allocation for these expenditures, as their Annual Implementation Plan for three consecutive years failed to reflect programs and projects to improve school facilities as well as the plan in hiring security guards and utility aides. However, in school year 2014-2015, despite not being included in the Annual Implementation Plan, School 5 utilized 41% of its per pupil expenditure on general services, utilities and communication expenses and repair and maintenance and this yielded a Lower Average Mean Percentage Score of 46.42.

Bottom-up estimating. Instead of immediately estimating the total amount to be allotted for each program, it is more accurate if the school planning team first identifies individual activities for each program, write down all the resource need and cost per program before adding them up together to come up with the total estimate.

Bottom-up estimating is known to be accurate and promotes company morale and involvement as it involves all members of a particular program (Business Knowledge Source, 2017).

Implementing this practice, it is easier to prevent overspending or taking a certain cut from the budget of one category to cover the needed amount in another if all individual activities have their own estimated budget from the start of the school year.

This study found out that faculty development has been the category that was most compromised in the span of three years. Based on the average allocated budget per student of the sample units, 10.4% of it must be given to trainings and seminars of teachers. However, only 5.2% of the average per pupil expenditure was utilized to help teachers in their professional development.

With bottom-up budgeting, it help schools stick to the budget indicated in the Annual Implementation Plan since proponents of each individual programs are the ones who will determine and be held responsible for the allocation and utilization of the school budget.

Policy 2: Proposed per pupil expenditure for the utilization of school budget. The Service Manual issued by the Department of Education enumerates the possible expenditures in which schools can use their allotted Maintenance and Other Operating Expenses (MOOE), school heads still possess the financial autonomy to manage the available financial resources, allot specific amount for each program and project in the Annual Implementation Plan and decide which among these possible expenditures would be funded.

In addition, school heads can also help manage and give suggestions on how to utilize other school incomes like the monthly income-generating projects, General Parent-Teacher Association voluntary contribution, revenue generated from the school canteen and funding from the local government units as to what he/she thinks would be the best practice to help students perform better in school and in the National Achievement Test.

However, this ongoing practice has been observed for years without evident improvement in the overall performance of the secondary schools in the National Achievement Test. In fact, Philippines is still far from the national target which is 75%.

With that, this study proposed the subsequent proportions in utilizing the school budget. This has been found to give result to a 1.08 difference in the average Mean Percentage Score of School 3 and School 5, the performing schools among the sample implementing units, in three consecutive school years:

Travelling Expenses – 6.00% of the total per pupil expenditure

Training and Seminar Expenses – 6.00% of the total per pupil expenditure

Supplies and Materials Expenses – 41.00% of the total per pupil expenditure

Utilities and Communication Expenses – 24.00% of the total per pupil expenditure

General Services Expenses – 12.00% of the total per pupil expenditure

Repair and Maintenance Expenses – 11.00% of the total per pupil expenditure

School 3 ranked 1st in terms of overall Mean Percentage Score for school years 2012-2013 and 2013-2014 and 2nd during school year 2014-2015 while School 5 ranked 2nd for school years 2012-2013 and 2013-2014 and 1st during school year 2014-2015.

Despite the fact that it only utilized 47.00% of the average per pupil expenditure for three consecutive school years for instructional-related expenses such as trainings and seminars of teachers and supplies and materials, School 3 was able to record a Mean Percentage Score classified as “Upper Average” in 3 out of 6 components in the National Achievement Test, namely: Filipino, Mathematics and Araling Panlipunan. The rest of the implementing units recorded average Mean Percentage Score classified as “Upper Average” in only 2 components.

Furthermore, based on the available data, School 3 has allotted 69.89% of its average per pupil expenditure for three consecutive school years, to financial categories that were found to have high positive correlation with the average overall Mean Percentage Score in National Achievement Test.

Likewise, the proposed proportion for each financial category observed to be within the range of percentages of the amount spent per student that were observed to

give an overall Mean Percentage Score classified as “Upper Average” for three consecutive school years as shown in Figure 6:

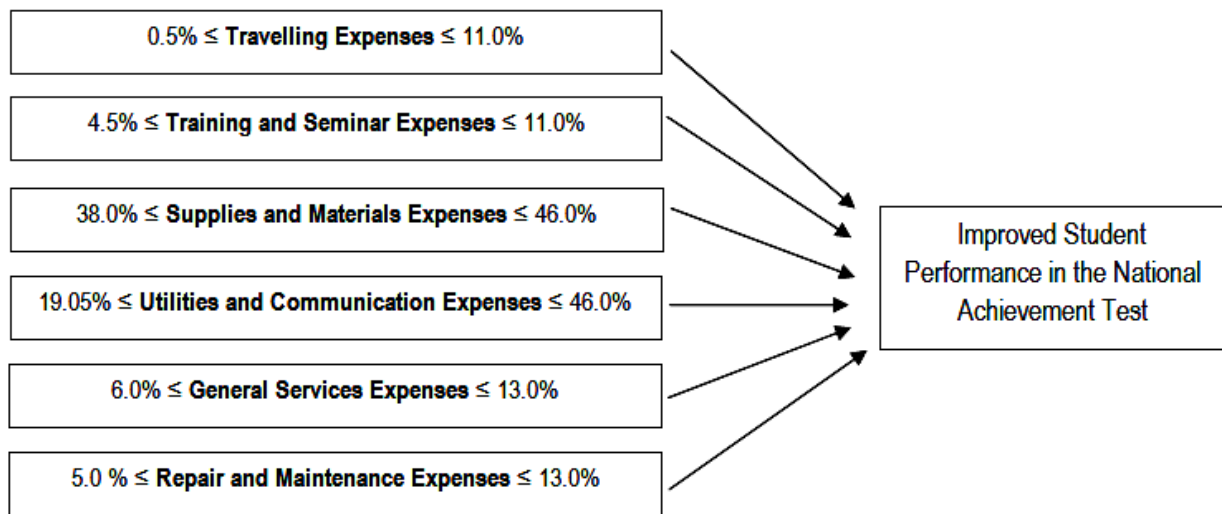


Figure 7. Range of percentages of the amount spent per student resulting to improved student performance in NAT.

Travelling expenses. Implementing units which are observed to perform better than the rest of the sample in the National Achievement Test during school years 2012-2013 to 2014-2015 and are known to obtain overall Mean Percentage Score classified as Upper Average utilized 0.5% – 11.0% per pupil expenditure for travelling expenses. School 3 and School 5 obtained a Mean Percentage Score higher than 50% during school year 2012-2013. And on school year 2013-2014, School 3 obtained a Mean Percentage Score of 56.87, School 5 with 53.04 and School 2 with 51.71. Looking at their expenditures related to the travelling expenses of school personnel when they go out of the school on official business, the three schools utilized an amount equivalent to 0.5% to 11.0% per pupil expenditure.

Training and seminar expenses. It is important to send teachers to trainings and seminars that will help them improve their teaching skills and enhance their knowledge of their subject matter. It is recommended to invest 10% of the budget on professional development of teachers (McCoy, 2014). However, implementing units that obtained Mean Percentage Scores classified as Upper Average utilized 4.5% to 7.0% per pupil expenditure to training and seminar of teachers.

Utilizing more or less than the proposed proportion was observed to produce a Mean Percentage Score lower than 50% which is classified as Lower Average.

School 4 utilized 8.60% of the amount spent per student for training and seminar of teachers, the largest budget utilization for training and seminar expenses in the sample implementing units for school year 2012-2013. However, it obtained an overall mean score of 46.59, the lowest Mean Percentage score among the 5 participating schools in the study.

While School 1 in school year 2013-2014 utilized 1.63% of its per pupil expenditure for training and seminar of teachers. This is lower than the proposed percentage for this specific category and it yielded a Mean Percentage Score of 47.51, the lowest among the mean scores of the sample implementing units in this study during school year 2013-2014.

On the other hand, School 5 in school year 2012-2013, utilized 5.85% of its per pupil expenditure on training and seminar of teachers. This is within the range of percentages proposed to be utilized for this specific financial category, in turn, School 5

achieved an overall Mean Percentage Score of 52.02, the highest mean score among the sample.

Supplies and materials expenses. In all the schools included in this study, supplies and materials expenditures appear to be the most funded financial category for three consecutive school years. Utilizing 38.0% to 46.0% per pupil expenditure is observed to yield a Mean Percentage Score of 50 and above in the National Achievement Test.

Looking at the individual data of the implementing units and the percentage of per pupil expenditure utilized for supplies and materials expenditures, it can be assumed that spending less than the proposed proportion will yield to a Lower Average Mean Percentage Score.

This holds true as School 1 utilized only 35.37% of the amount spent for each student for supplies and materials, School 2 with 33.39% and School 4 with 34.65% and their recorded overall Mean Percentage Score during school year 2012-2013 were 47.08, 49.69 and 46.59 respectively.

Whereas, during the same school year, School 3 utilized 45.81% of the amount spent for each student for this category and yielded a Mean Percentage Score of 52 at the end of the school year. The same situation can be observed with the utilization of school budget of School 5. When the planning team of School 5 utilized 45.65% per pupil expenditure on supplies and materials, School 5 obtained Upper Average Mean Percentage Score in the National Achievement Test with a numerical value of 53.04.

On the other hand, when School 2 increased its spending on supplies and materials the following year to 43.88% per pupil expenditure, their Overall Mean Percentage Score increased from 49.69 to 51.71. In school year 2013-2014, School 2 performance in the National Achievement Test is classified as Upper Average, together with School 3 and School 5.

Utilities and communication expenses. Based on the available data, implementing units that utilized 19.0% to 26.0% per pupil expenditure obtained an overall Mean Percentage Score of Upper Average in the National Achievement Test.

Looking at the data of school year 2012-2013, School 3 utilized 26% of its per pupil expenditure to pay for the monthly bills for utilities and communication, while School 5 utilized 19.05% of its per pupil expenditure for the same expenditure. This manner of spending for this financial category was observed to be implemented during the same year these two schools obtained an Upper Average mean score in the National Achievement Test.

A school year later, School 2 which previously utilized 27.01% of its per pupil expenditure on utilities and communication expenses decreased the amount spent on this category to only 23.25%. The cut in the budget for payment for monthly bills for electricity, telephone, water and internet was observed to result to an increase in the Mean Percentage Score of School 2. What was previously recorded at 49.69% and classified as Lower Average, improved to Upper Average with a numerical value of 51.71.

General services. This financial category involves remuneration for security guards and administrative aides. This study found out that implementing units utilizing 6.0% to 13.0% of per pupil expenditure is observed to obtain a Mean Percentage Score of 50 and above in the National Achievement Test.

School 3 has been constant with this proportion. In school year 2012-2013, the school utilized 12.34 % of the total amount spent for each student for general services. This is to assure the safety of the students while inside the school campus as well as maintain a clean and conducive to learning school environment by hiring security guards and administrative aides. School 3 obtained an overall performance classified as Upper Average and numerical value of 52 during this school year.

During school year 2013-2014, School 3 utilized 11.38% of its per pupil expenditure on general services. This is lower than the utilized amount per student than the previous school year but this manner of spending resulted to a higher overall Mean Percentage Score in the National Achievement Test which was 56.87.

When School 2 utilized 23.6% of the amount spent per student to general services, its overall performance in the National Achievement was lower than 50% but when the school tried to decrease the amount spent on security and administrative aide to just 16.2% of the total amount spent per student, the Mean Percentage Score increased to 51.71 from 49.69 and was classified as Upper Average.

Repair and maintenance expenses. Implementing units that utilized 5.0% to 13.0% of the total amount spent for each student on repair and maintenance expenses were observed to obtain a Mean Percentage Score classified as Upper Average.

In fact, in school year 2012-2013, School 2 utilized PhP 7.51 per student on repair and maintenance expenditures of the school. This is only 2.12% of the total amount spent per student during this school year. This manner of spending in repair and maintenance expenditures was observed to yield a Mean Percentage Score of 49.69 and classified as Lower Average. However, during school year 2013-2014, when School 2 spent more on this category and increased the amount per student to PhP 27.95, this is 6.32% per pupil expenditure, the performance in the National Achievement Test improved to 51.71 and is classified as Upper Average.

In addition, School 3 and School 5 utilized 5.0% to 13.0% of the total amount spent per student on repair and maintenance expenses from school year 2012-2013 to 2013-2014 and this pattern is observed to yield a Mean Percentage Score of 50% and above in the National Achievement Test.

A big cut of the school budget or 47% of the per pupil expenditure shall go to instructional expenses such as trainings and seminars of teachers and supplies and materials as existing research reports, together with this present study, found that instructional expenditures have significant relationship with student performance. Likewise, instructional expenses were found to be highly correlated with the overall performance of the students in the national standardized examination.

Utilities and communication expenses are indispensable school expenditures since these are needed in order for the school to fully function not only as an education provider to the students but also to send and upload reports online.

On the other hand, both general services and repair and maintenance expenses must be given focus in order to give students a more conducive to learning school environment. Besides, these two quantities were also found to have significant relationship with Mathematics, Critical Thinking Skills and the overall performance in the National Achievement Test.

The detailed spending plan shall still depend on the priority needs of the implementing units based on the assessment of the school heads of which materials must be bought or which among the school facilities needed repair. However, the total amount of the expenditures shall still depend on the allotted percentages for each financial category.

Areas of consideration for the proposed policy for utilization of school budget. Funding is limited; however, the needs of a school seem incessant. If schools fail to find enough budget to cover the necessary expenses, they will most likely find it hard to function.

The school leadership team must effectively manage the financial resources, through proper budgeting, to ensure financial stability. Financial constraints can be an inhibitory factor in producing good quality education. But the issue is not always about the amount of money being spent to fund programs and projects to improve the quality of education, but rather, it has been proven by various research reports that the manner on how money is being spent in the school level is more important (Quality Counts, 1997; Harter, 1999; Malone 2000; Womack. 2000; Roza, Miles and Foley, 2003; Miller, 2002; Loeb, 2003; Dollof, 2015).

During school year 2014-2015, both Filipino and Mathematics were found to have significant relationship with supplies and materials expenses. The manner of spending of the implementing units, based on available data, affect the performance of the students in the National Achievement Test. Schools that utilized higher budget for supplies and materials expenditures, higher Mean Percentage Score was observed. Moreover, training and seminar expenses and supplies and materials were found to have high positive correlation with the overall performance in National Achievement Test.

Both the supplies and materials expenses and training and seminar expenses constitute the instructional expenses of the schools. Since these two expenditures include budget utilization for categories that directly affect the teaching and learning process inside the classroom. With the data presented in this study, it can be presumed that the higher is the budget allotted for both trainings and seminars of teachers and the supplies and materials that include the acquisition of needed instructional materials, better student performance in the National Achievement Test can be observed as both categories were found to have high correlation with the Mean Percentage Score.

However, based on all available data in the present study, there are schools in the City Schools Division that did not base the manner of allocation and utilization of school budget on existing researches regarding effective and efficient management of school resources that has the potential to improve student performance in the National Achievement Test. Instead, schools implemented the same Annual Implementation

Plan, funded the same expenditures, had the same priority areas, without evident significant improvement in the overall performance in the National Achievement Test.

With increasing funding but an overall Mean Percentage Score that is still lower than the national target, it is only apparent that the schools lack the initiative to maximize the output by looking for ways on how to allocate and utilize the limited funding given for a specific school year.

Potential risks of the proposed policy for utilization of school budget.

Employing the proposed proportion for the utilization of school budget may present itself as a paradigm shift. Due to the implementation of School-Based Management, principals are given the financial autonomy to allocate and utilize the school budget in order to address the pressing needs of their respective schools.

As such, presenting the proportions for the utilization of school budget has the possibility of limiting this financial autonomy due to principals are restricted to follow a certain formula in spending their school budget to test the theory presented in the study.

In addition, schools in a City Schools Division have peculiar needs that need to be addressed. If funds are controlled based on the proposed policy, the ability of the school heads to respond to immediate needs of the schools will also be affected.

Likely positive outcomes of the proposed policy for utilization of school budget. The proposed policy for utilization of school budget sees valuable contributions to the educational system, despite the potential risks presented.

Since there is a limited percentage allotted to a specific expenditure, the proposed policy would encourage the school leadership team to carefully plan each expenditure of the school. This will most likely lessen the cases of misallocated funds.

Also, external pressure to educators to improve school performance is mounting. Having a research-based policy on how to manage school resources will shed light on the decade-long debate whether utilization of school expenditures affect student performance.

And lastly, this policy will raise awareness of school heads and the whole school leadership team about managing and spending school resources on targeted expenditures that will help improve student performance.

Utilization of School Budget Policy Framework

This part of this chapter includes the outline of the proposed policy for utilization of school budget in a City Schools Division that aims to improve student performance in the National Achievement Test.

Haddad (1995) defined policy framework as the full policy-planning process but with a focus on the facilitating and constraining effects that policy decisions can have on the choices available to educational planners.

The following policy framework was developed based on the results of the present study and the inputs to policy formulation.

Guidelines on the Utilization of School Budget

I. Rationale

School budget takes care of school plans that required the spending of money in order to achieve the school's objective (Blake, 2002). These school plans include programs and projects that aim to improve the student performance and achieve the national target which is a Mean Percentage Score of 75% in the National Achievement Test.

However, majority of the students continue to fare poorly in the National Achievement Test. In fact, according to DepEd Order No. 72, s. 2011, 0.35% of the entire population of the secondary schools during school year 2010-2011, obtained a Mean Percentage Score of 0-25% while only 1.13% scored 76% and above.

Schools are held to high level of accountability as education continues to get the largest share in the annual national budget. In the absence of efficient and effective allocation and utilization of school budget, schools will continue to perform poorly in the National Achievement Test. This policy shall establish the proportions per financial expenditure to be adopted by schools in managing the annual school budget.

II. Scope of the Policy

This policy aims to establish rules and guidelines on how to improve the performance of the students in the National Achievement Test through effective and efficient management of the school budget in a City Schools Division.

III. Definition of Terms

1. Allocation - the planned apportion of school budget to a specific plan, program or project as reflected on the school's AIP
2. Utilization - the actual use of the school budget as reflected on the annual financial reports of the schools
3. School Budget – the summation of school income (Maintenance and Other Operating Expenses, Local Government Funding, Local Stakeholder Funding, Income Generated from the School Canteen, Income Generating Projects of the School)

IV. Policy Statement

This policy hereby establishes the standard set of guidelines in improving the school performance in the National Achievement Test through the effective and efficient utilization of school budget. This mechanism adheres to the DepEd's mission, vision and core values and subscribes to the following principles:

- a. transparency and accountability
- b. effective and efficient use of school budget

V. Guidelines on the Utilization of School Budget

This policy outlines the research-based recommendation of guidelines on effective and efficient management of the school budget. This policy details the proportions for each financial category, lifted from the DECS Service Manual (2000), which are found to yield Upper Average Mean Percentage Score in the National Achievement Test.

To ensure the efficient and effective utilization of school budget, the following set of guidelines is recommended to be observed:

1: Formulation of School's Annual Implementation Plan

School Planning Team must carefully and strategically construct the Annual Implementation Plan. Expenditures relative to programs and projects within the school year must be aligned with the Annual Implementation Plan. Otherwise, proposed programs and projects after it has been signed by the School Head and approved by the Schools Division Superintendent (SDS) shall not be accepted.

Moreover, expenditures shall be reported explicitly. Financial statements for every spending made must include but not limited to the following:

- A. labor (remuneration for services offered to complete the program/project)
- B. travelling expenses
- C. tokens (for resource person, judges)

D. Refreshments (for visitors and faculty members during school programs)

2: Financial Categories of School Expenditures

School expenditures shall be grouped according to the following categories:

- A. Travelling Expenses
- B. Training and Seminar Expenses
- C. Supplies and Materials Expenses
- D. Utilities and Communication Expenses
- E. General Services Expenses
- F. Repair and Maintenance Expenses

Financial reports are also expected to detail the expenses made in a school year in the above-mentioned categories.

3: Proportions for each Financial Category

The ensuing proportions for the financial categories are recommended for implementation and utilization shall be reported in observance of the existing transparency provisions:

A. Travelling Expenses – Expenditures relative to the travel of the school personnel must be limited to only 6.00% of the total per pupil expenditure for one school year. This category also includes the board and lodging of

school personnel when they need to stay more than a day in the venue of the training/seminar/ workshop.

B. Training and Seminar Expenses – Amount spent on trainings and seminars of school personnel must be restricted to only 6.00% of the total per pupil expenditure in one school year. This includes district, division, regional, national and international trainings/seminars/ workshops on either content and pedagogy or training on administrative functions of key teachers.

C. Supplies and Materials Expenses – Expenditures relative to purchase or acquisition of instructional materials and office supplies must be limited to only 41.00% of the total per pupil expenditure each school year. The manner of spending shall depend on the school planning team's decision on which specific expenditure is the priority for one school year.

D. Utilities and Communication Expenses – 24.00% of the total per pupil expenditure shall be allotted to pay for the bills of the schools, namely: telephone, internet, electricity and water bills. Campaign on energy conservation is also encouraged in order to limit the expenses within the allotted proportion for this expenditure.

E. General Services Expenses – Remuneration for services rendered by security guards and administrative aides must be limited to only 12.00% of the total per pupil expenditure for one school year.

F. Repair and Maintenance Expenses – Minor repairs and maintenance shall be restricted to 11.00% of the total per pupil expenditure to ensure fully functional facilities of the school.

VI. Other Provisions

In relation to the utilization of school budget, this policy shall also reiterate the expenditures allowed to be funded by Maintenance and Other Operating Expenses (MOOE) based on the provisions set in DECS Service Manual (2000).

Whereas, other sources of school budget can be used in other school-related expenditures subject to the usual accounting and auditing rules and regulations.

VII. Monitoring and Evaluation

Compliance of this policy shall be monitored by the Schools Division Superintendent (SDS) through monthly financial reports submitted by the bookkeepers of the schools in the City Schools Division and duly signed by the principal.

In the regional level, the regional director will monitor the compliance of schools and division with this policy. The School Effectiveness Division (SED) at the central office will evaluate the performance of the schools in the National Achievement Test a school year after the implementation of this policy. Following reviews and revisions of this policy will be conducted with the Policy Research and Development Division (PRD-PS), if necessary.

VIII. References

DECS Service Manual (2000), DepEd Order No. 72, s. 2012

IX. Effectivity

This policy shall be in force and effect on January 2018, unless sooner repealed, amended or rescinded.

Chapter 4

Summary, Conclusions and Recommendations

The objective of the present study was to find out how secondary schools in the Division of Antipolo City utilized the school budget and which among the expenditures received the highest budget allocation based on the Annual Implementation Plan for the last three school years. These were then related to the schools' performance in the National Achievement Test, by component and overall Mean Percentage Score. The conclusions derived from the analysis of the gathered data served as the basis for the policy formulation in utilizing school budget to help improve school performance in the National Achievement Test.

Summary of the Results

The analysis which follows centers on the three main research questions which were examined and served as the basis of the policy on how to effectively and efficiently utilize the school budget:

Research question number 1 focused on how the participating IUs managed their school budget in terms of allocation as reflected in their AIPs and utilization as seen in their submitted financial reports.

The following statements are the findings of the present study:

1. The Annual Implementation Plan of the sample for three school years focus on five categories: Student Development, Staff Development, Curriculum Development, Physical Facilities Development, Administration and Management.

2. The main priority of the sample based on the tentative budget reflected on the Annual Implementation Plan of the schools was Curriculum Development. This includes programs that aim to improve the delivery of the curriculum to the students by purchasing instructional materials that will aid teacher instruction. In the course of three school years, the sample allotted an average amount of PhP 298.59 per student in procurement and reproduction of materials, both national-released and teacher-made, which was used in the teaching and learning process.

3. Administration and Management ranked second to curriculum development in three school years. This category includes programs that aim to fund expenditures for utilities and communication, remuneration for services rendered by security guards and administrative aides, acquisition of office furniture. Participating implementing units allotted an average amount of PhP 221.63 per student in order to pay for the said expenses.

4. Student development was found to be the third priority of the sample among the categories reflected on the Annual Implementation Plan of the implementing units with

an average of PhP 183.89 in three school years. This category holds plans and programs targeting the improvement of the performance of students in the National Achievement Test.

5. Staff development that includes programs in improving the teaching strategies, content and pedagogy and train teachers in administrative functions ranked fourth in priority based on the allocated budget of the sample in the Annual Implementation Plan. An average amount of PhP 85.91 per student was allocated to fund the trainings and seminars of teachers in three school years.

6. Physical facilities development was the least priority of the implementing units in the course of three school years as reflected in the tentative budget in the schools' Annual Implementation Plan. An average amount of PhP 29.21 per student was allotted for minor repairs and to ensure that school facilities are fully functional.

7. Based on the actual spending of the schools, expenditures can be categorized into six categories as reflected on the financial reports of the implementing units and as appeared on expenditures which can be funded by the Maintenance and Other Operating Expenses as lifted from DECS Service Manual (2000). These are Travelling Expenses, Training and Seminar Expenses, Supplies and Materials Expenses, Utilities and Communication Expenses, General Services Expenses and Repair and Maintenance Expenses.

8. Among the six financial expenditures based on actual spending of the implementing units, supplies and materials expenses is found to have the highest average budget utilization of PhP 328.02 per student. This amount was used to purchase instructional materials such as ICT devices like projectors, LED televisions, amplifier and speakers. This amount was also used to procure reference books and to reproduce activity materials for teacher instruction.

9. Electricity, water, telephone and internet are indispensable expenditures of the school. Without this, classrooms will not be conducive to learning as students will find it hard to concentrate in a classroom that is not well-ventilated and has insufficient light source. More so, water is needed not only for drinking but also to maintain the comfort rooms clean and without stinky odor. Telephone and internet are needed for communication purposes as majority of the reports in the Department of Education are submitted and viewed online. With this, it is apparent that the participating schools utilize an average of PhP 183.63 in the course of three school years to pay for the bills related to utilities and communication. This expenditure ranks as the second largest expenditure category of the sample.

10. General Services utilized an average of PhP 109.05 from school year 2012-2013 to 2014-2015. Amount spent relative to this category was used to pay for the services rendered by the administrative aides and security guards in keeping the school environment clean and safe to both students and school personnel.

11. Maintaining school facilities functional and ready-to-use is found to be the fourth priority of the participating implementing units as reflected by the expenditures from school years 2012-2013 to 2014-2015. Utilizing an average of PhP 58.85 per student in three school years, schools were able to do minor repairs in the physical facilities.

12. Training and seminar expenses include payment for the In-Service Trainings during the months of May and October as well as registration fee of the key teachers when they attend division, regional, national and international seminars accredited by the Department of Education. Participating implementing units utilized an average of PhP 62.9 per student to train teachers in content and pedagogy as well as in their administrative functions. This expenditure, as reflected by the utilized budget in three school years, is the fifth priority of the sample implementing units.

13. The expenditure that received the least funding during school years 2012-2013 to 2014-2015 is the travelling expenses. An average amount of PhP 39.20 per student was utilized to fund expenses relative to the travel of the school personnel when they go out of the school on official business.

Research question number 2 focused on the description of the National Achievement Test results during school years 2012-2013, 2013-2014 and 2014-2015. Using DepEd Order No. 72, s. 2011, Mean Percentage Scores of the sample implementing units are described on the next page:

1. In school year 2012-2013, only Mathematics and Araling Panlipunan was classified as Upper Average. This means that the Mean Percentage Scores of the sample implementing units fall between the range of 50% to 75%. Whereas, only School 3 has an Upper Average performance in Mathematics. Lower Average Mean Percentage Score can be observed in the rest of the components in the National Achievement Test.

2. In school year 2013-2014, School 1 obtained a Mean Percentage Score classified as Lower Average in Filipino while the rest of the implementing units obtained Upper Average in this component. In addition, the sample obtained Upper Average mean scores in both English and Araling Panlipunan while in Mathematics, only School 3 and School 5 obtained an Upper Average Mean Percentage Score. The rest of the components in National Achievement Test during this school year were classified as Lower Average.

3. In school year 2014-2015, the implementing units obtained Upper Average performance in Filipino while the rest of the components were classified as Lower Average.

4. In terms of the overall performance in the National Achievement Test, only School 3 and School 4 obtained an Upper Average Mean Percentage Score during school year 2012-2013. Whereas, in the following year, School 2, School 3 and School 5 obtained Upper Average mean score. However, in school year 2014-2015, the sample performed

poorly in the National Achievement Test with a record of Lower Average in their overall performance.

Research question number 3 focused on the correlation of the allocation and utilization of the school budget and the mean percentage scores in the National Achievement Test. The present study observed the subsequent points:

1. Allocation of the school budget based on the proposed spending as reflected on the Annual Implementation Plan for three consecutive school years showed that prioritizing programs and projects relative to curriculum development and student development have significant relationship with the Mean Percentage Score in Critical Thinking Skills Test and Filipino respectively.

2. Analysis of data shows that implementing units focusing on programs and projects targeting improvement of the delivery of the curriculum by allotting higher tentative budget resulted to higher Mean Percentage Score in Critical Thinking Skills Test. Whereas, those implementing units proposing high tentative budget relative to student development showed low performance in Filipino.

3. Actual utilization of school budget as reflected on the financial reports of the sample showed that training and seminar expenses, supplies and materials expenses, general services and repair and maintenance expenses have significant relationship with the components of the National Achievement Test.

4. Training and seminar expenses shows very high correlation with the Mean Percentage Score in critical thinking skills test while supplies and materials expenses show high correlation with this component. Whereas, the higher the budget implementing units utilize on supplies and materials, the higher mean percentage score can be observed in Filipino and Mathematics as these variables show very high correlation with each other.

5. Mathematics also showed very high correlation with general services expenses and Critical Thinking Skills Test has high correlation with repair and maintenance expenses. These components in the National Achievement Test seem to improve as the quality of the learning environment develops. As general services and repair and maintenance focus on improving the school environment by maintaining the functionality of school facilities and ensure safety and cleanliness of the surroundings.

6. Among the six financial category under utilization of school budget, only repair and maintenance expenditure shows significant relationship with the overall school performance.

Limitations of the Study

The following limitations were present in the study. This study was designed to determine the relationship between the financial categories of the school budget and the Mean Percentage Score in the National Achievement Test. This did not include other

factors that may have an impact on student achievement such as parent involvement, class size, and teacher qualifications.

School budget for the school year was computed based on the submitted financial reports of the 5 participating implementing units for the study. This included the Maintenance and Other Operating Expenses of the schools, revenue generated from the school canteen, funding support that comes from the local government units which is called as the Special Education Fund (SEF), funding support that comes from local stakeholders, such as the School Governing Council (SGC) and General Parent-Teacher Association (GPTA), and DepEd approved income-generating projects of the school. It is presumed that the participating implementing units had submitted all the necessary documents needed to complete this study as this were requested from and approved by the SDS and School Heads.

Generalizations from this study may be limited to the City Schools Division itself and to the schools involved in the study. This also did not address the disparities that existed in private schools and there is a possibility that disparities existed in the documents submitted since the data submitted was made in the school level.

This study is quantitative in nature. Hence, it does not explore qualitative methods in finding information to support the findings. Nonetheless, quantitative approaches are known to be precise through quantitative and reliable measurement (Burns, 2000).

Conclusion

The study has shown that (1) schools follow an identical strategic plan in allocating financial resources yearly (2) as supplies and materials, trainings and seminars, general services and repair and maintenance expenses rise, student performance also rises (3) the positive relationship of financial expenditures and student performance is strongest in Mathematics (4) the manner of spending financial resources only affects student performance in a number of subject areas but not the overall performance in the National Achievement Test.

A few contributions to the literature have been provided by this present study. First, it confirmed that the existing research on the positive relationship between learning environment and student performance held true (Byrne and McKeown, 2000; McCombs, 2003).

This research found out that general services and repair and maintenance have significant relationship with both Mathematics and Critical Thinking Skills Test Mean Percentage Scores. When the learning environment appears to be attractive and provides a more conducive to learning feel to both students and teachers, students tend to think more critically and perform better in Mathematics.

Likewise, instructional expenditures have significant relationship with student performance in the National Achievement Test. Two of the six financial expenditures are known to directly affect instruction: Training and Seminar Expenses and Supplies and Materials Expenses. Increase in funding in these two categories shows an increase in student performance in Filipino, Mathematics and Critical Thinking Skills Test. And

though the relationship may not be found as significant, these instruction-related expenditures are found to have high positive correlation with the overall performance of the implementing units in the National Achievement Test.

Second, this study supports that school size or student population does not necessarily affect student achievement level. School 3 performs better in terms of mean percentage score than School 5 but with only 1.08 mean percentage score points. Looking at the annual enrolment of the two schools, School 3 is the smallest implementing unit that participated in the study while School 5 is the largest. Likewise, School 4 is smaller than School 2 in terms of student population. However, School 2 performed better in the National Achievement Test with 1.75 Mean Percentage Score points higher than School 4.

Third, the manner of spending, not the amount spent can affect student performance. With the available data, implementing units spending 45% and above on instructional expenditures perform better than those spending less on this category. This supports the notion that spending on expenditures that directly affect the teaching and learning process has more potential in increasing student performance.

Recommendations

Odden and Picus (2008) mentioned that during these years when accountability to student performance continued to rise and the funding for educational expenditures has become stagnant or possibly decreases, educational planners and school administrators must efficiently and effectively allocate the available financial resources in order to create positive impact to student performance. Afterall, money does make a

difference (Jones and Slate, 2010). The implication of this study, therefore, is to encourage the school leadership team to carefully plan the expenditures of the school in order to lessen the cases of misallocated funds. Moreover, to raise awareness of school heads and the school leadership team about managing and spending school resources on targeted expenditures that will help improve student performance.

This also contributes to the debate of whether utilization of school expenditures affects student performance. This research also took initial step of formulating policy recommendation on how to utilize school budget based on the data gathered throughout the process of writing this study.

Although findings of this study show that there is correlation between the six financial categories and student achievement with evidence of National Achievement Test, it is still difficult to draw definitive conclusions as to which specific expenditures per financial category result to the positive performance of students in the National Achievement Test.

Therefore, it is encouraged to consider the following recommendations for future research to narrow conclusions to find the most advantageous approach in utilizing the school budget to advance student performance.

1. The recommendation for further research is to replicate this study with the specific expenditures under the supplies and material expenses category and training and seminar expenses categories. It is known that analyzing individual expenditures is the first step in linking expenditures to student outcomes (Pruslow, 2001). However, little research has been conducted about which among the expenditures under these two

categories greatly affect the student performance. Professional development, technology, instructional materials like reference textbooks and laboratory equipments, performance-based incentives would be beneficial areas to investigate to further understand and assist school administrators in allocating funding.

2. Replicate this study using the overall top and low performing schools in the National Achievement Test in the country. This would shed light on the trend in allocation and utilization of school budget per student to solidify the findings of this study. Furthermore, this would also help inclusive findings to be concluded.

3. The final recommendation for further research would be, for the purpose of the study, to align the financial categories for utilization of school budget and its specific expenditures with the categories indicated in the AIP of the schools. This would show whether schools stick to the budget plan created in the beginning of the school year as shown in the Annual Implementation Plan when utilizing the school budget throughout the SY.

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