

Effect Of Mentoring Skills of Master Teachers on Instructional Practices of Teachers and Pupils' Academic Performance

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Abstract — This study described the mentoring skills of master teachers on teachers' instructional practices, instructional practices of teachers, and pupils' academic performance. This study also determined if the mentoring skills of master teachers have an effect on the teachers' instructional practices, and pupils' academic performance.

Descriptive and correlational analyses were used in the study through the use of survey questionnaires. The respondents of the study were the twenty-seven (27) elementary master teachers, two hundred seventy (270) elementary regular teachers, and three hundred twenty-nine (329) grade 6 pupils from all schools in the Dipolog City Division.

Two research instruments were used in this study. One instrument was used to gather information about the profile of master teachers. The second instrument was used to determine the mentoring skills of master teachers on teachers' instructional practices on mastery of the subject matter, teaching strategy, classroom strategy, evaluation, and mentoring. It was also used to determine the instructional practices of teachers and pupils' academic performance.

Descriptive analysis was made by classifying the respondent groups according to demographic profile. Correlational analysis was used to determine the relationship between the variables. The statistical methods used to analyze and interpret the results were the frequency, percent, weighted mean, standard deviation, Mann-Whitney U Test, Kruskal-Wallis H Test, and the Spearman Rank-Order Correlation Coefficient.

The mentoring skills of master teachers have a very high effect on teachers' instructional practices. The teachers' instructional practices were very highly effective and the pupils' academic performance was outstanding. The mentoring skills of master teachers significantly and highly influence the teachers' instructional practices. Master teachers who are very highly skilled will enhance the teachers' instructional practices to be very highly effective. However, the mentoring skills of master teachers along mentoring have a moderate significant effect on pupils' academic performance.

The researcher encourages master teachers to explore more effective mentoring skills that could augment and enhance the instructional practices of teachers and performance of the pupils. The mentoring skills, namely; Mastery of the Subject Matter Skills, Teaching Strategy Skills, Classroom Management Skills, Evaluation Skills, and Mentoring Skills should be applied and adapted in the classroom instruction to ensure variety and efficiency of teaching the subject and improve academic performance of the pupils.

Keywords — *Mentoring, Mentoring Skills, Instruction, Instructional Practices, Academic Performance*

I. Introduction

A thousand teachers have a thousand approaches in teaching. Every approach has a set of principles beliefs or ideas about the nature of learning which is translated in the classroom.

Given the current trend of teaching all students, in inclusive general education settings, it is important to find instructional approaches and practices that adequately address the diverse needs of today's students. This is particularly challenging when it comes to instruction due to the diversity of teaching philosophy and methodology used within the special and general education communities.

As cited in the study of Makavec (2018) that different experts emphasize different practices in effective teaching. Many begin with the knowledge of subject matter as core to the quality of a teacher (Schatter, 2012; Scot, Callahan, & Urguhart, 2009; Stronge et. al., 2011). These different practices describe the transformation process as a continual restructuring of subject matter knowledge for the purpose of teaching. This transformation occurs as the teacher critically reflects on and interprets the subject matter knowledge to find multiple ways to represent information to learning. It has become clear in recent reviewed literature and studies that teachers' subject matter knowledge is crucial to good teaching and student learning.

The relationship between teaching and learning is at core of many of the discussions in education today. Marva Collins' (1992) as cited in the study of Keiser, et al. (2016) strongly stressed out the statement "Don't try to fix the students, fix ourselves first. The good teacher makes the poor student good and the good student superior. When our students fail, we as teachers, too, have failed".

However, in the recent survey conducted by the 2019 Trends in International Mathematics and Science Study (TIMSS) and 2018 Program for International Student Assessment (PISA) revealed that Philippines scored the lowest among all fifty-eight (58) participating countries. This is showing the poor academic performance of Filipinos.

In view thereof, the quality of education was put in a serious question. This is a challenge for the Department of Education (DepEd) illustrates reform and upgrades the education curriculum. The DepEd stands strongly to the statement "Our policy is to translate these international assessments in to concrete and implementable actions that can have a direct impact on our learners' achievements and teachers' improvements".

Through this, professional developments in relation to instructional practices of teachers were planned and regulated nationwide. Several conferences and seminars about mastery of the subject matter skills; teaching strategy skills; classroom management skills; evaluation skills; mentoring skills; curriculum and pedagogy; planning, assessing and reporting; and personal growth and professional development were conducted.

In relation to this, the Department of Education mandated instructional leaders to create and design a well – planned instructional development and improvement focusing on teaching practices. This will be the biggest efforts for the master teachers and principals to prepare and to develop effective transition of education.

Master teachers do more advance in their careers in education. By consistently using and sharing their knowledge and understanding with others through mentoring, they can help contribute and drive to improve the instructional quality of their schools. Mentoring is a skill which master teachers provide an opportunity to glean an understanding of the best ways to accomplish.

Ensher and Murphy (2006) as cited by Gul, Demir and Criswell (2019) point out that mentoring is a formal master teacher leadership roles and skills that create cordial space for teachers to display their instructional practices as it directly brings value to the school community. It is found out that mentoring is a vital component of teacher development, which is a continual process of capacity building, figuring out better pathways to success, and providing the support teachers need to come together as communities of practice.

Petrovska, S. et al. (2018) reinforced that mentoring is a complex, interactive process that takes place between people with different levels of experience and expertise, in which the expert (mentor) gives support to his colleague in order to become more efficient in the work and to contribute to the achievement of the goals of the institution. The ultimate goal of the mentoring process is professional development and career advancement. The mentoring process is an integral part of every sphere of life and work. Through this process: the general and specific work competencies of the mentee are being promoted, emotional support is given and the knowledge, skills and experience of the mentor are transferred to the mentee, and this directly improves the quality of work in the institution itself. Mentoring as a process has always existed in the sphere of education, regardless of the form in which it came through time (formal and informal). In the educational sphere, main participants in the mentoring process are the experienced teachers with conforming objectives and the beginner teacher who always exhibits proficient outcome of pupils' performance.

Petrovska, S. et al. (2018) added that mentoring process helps beginner teachers in a way that it facilitates the process of transition from studies to practice and helps them to turn the potential failure into success, and on the other hand, this process provides children with quality teaching. The value of the mentor is of great importance, but at the same time, the benefit that the mentor has in the process is important.

Mentoring is to support and encourage people to manage their own learning in order that they may maximize their potential, develop their skills, improve their performance and become the person they want to be. This is supported by John C. Crosby as cited by Nair, A.K. (2019) that mentoring is a brain to pick, an ear to listen, and a push in the right direction. The guidance, support

and insight given by a more experienced person or a mentor act as a support system in teaching-learning process in the most effective way.

Nair, A.K. (2019) emphasized that mentoring begins with a rapport building which is made in first contact. The mentee and mentor then reach a mutual agreement accepting certain terms and conditions. Both mentor and mentee together develop an action plan on that particular objective they are aiming to achieve. After deciding and fixing on the action strategies the mentee puts it into application and attempts to see how it works in the reality. If it works, the mentee carries on with the same until the need arise for the formation of the next strategy; if does not work the mentor and mentee go back to the previous step and plans up the subsequent best fit. The process continues until the mentee gets successful in implementing the action plan.

Mentoring is a strategy to keep teachers in the profession. Better support structures must be devised to improve quality teaching towards the improvement of quality learning of students. Experienced teachers (master teachers) who act as mentors are now known to be influential to teachers (Salgur, A.S., 2014). Master teachers are highly skilled individuals and play a vital role in education settings with the support of mentoring skills that they advocated.

Mentoring skills of the master teachers are always considered providing opportunities of teachers improve their knowledge and skills to develop teaching materials and use various methods of learning in the learning process. These skills give effect on teachers' performance and pupils' academic achievement.

Mentoring skills of master teachers possess a high level of culture and excellent knowledge of the methods of educational work. These skills make a significant contribution to improving the quality of teaching and educating younger generation (Ikromova, A., 2020).

Kent et al. (2012) as cited in the study of Callahan, J. A. (2016) supported that mentoring skills are strategies that involve developing long-term professional goals, helping teachers discover the ways the students think in order to assist in the development of students' critical thinking and reasoning skills. Research has indicated that these skills increase students' achievement, improve student behaviour, and greater teacher enthusiasm.

Furthermore, mentoring skills of master teachers involve with a well-planned and comprehensive professional development practices. It designed to focus on teachers' fluctuating beliefs and limited experience, as well as on recognizing the short-term and long-term needs of teachers. Mentoring skills bring greater impact on teaching practices and students' academic performance (Kent et al., 2012).

Cambria, E. (2006) established that mentoring skills are master teachers' pedagogical approaches which involve offering practical and concrete advice, promoting reflective practice, demonstrating effective instruction, observing and providing immediate feedback, and offering

perspective to an overwhelmed teachers. These skills contribute greater significance on instructional practices of teachers and provide influence to students' achievement.

In the Department of Education, master teachers are identified and relegated as assistant to the principal or master teachers are alternate to that of becoming a school administrator.

Master teachers are the key persons to carry the primary responsibility of necessary planning and organization of curriculum within the varying time frame. They are experts in supervising and supporting everyday teachers, teacher assistants, substitutes, and volunteers to include sharing routine program plans as well as discussing children goals.

Blackwell (1989) as cited by Stanley, C.A. (2015) states that master teachers are persons of superior rank, special achievements, and prestige instruct, counsel, guide, and facilitate the intellectual and/or career development of persons identified as beginner teacher (p. 9).

Master teachers as instructional leaders support the development of their peers by creating professional learning opportunities. Master teachers commit to (1) facilitate colleague development through coaching, classroom visits, debriefing, and creating on-going growth opportunities, (2) structure, design, and facilitate on-going professional learning sessions, and (3) impact initiatives and school-wide decision-making by working with school and/or district leadership (Teacher Career Pathways, UFT, 2015).

Master teachers are leaders who have mastered the basics of teaching, leader who go above and beyond to ensure a positive learning experience for each student and leaders who share his or her knowledge with broader learning community. Kaye and Jacobson (1995) as cited by Huizing, R. (2012) states that master teachers can: (a) be a guide, (b) be an ally, (c) be a catalyst, (d) be a perceptive insider, and (e) be an advocate.

Master teachers are expected to have more experience in curriculum development, professional development, and mentoring than a traditional teacher; they serve as a role model for all other instructional staff and are considered the "gold standard" in teaching (NIET cited in Moore, 2015). They are considered the "crème de la crème" of the teaching profession and their practices will be different from the general, non-master teachers (Ibrahim & Nambiar, 2013). McClean (2009) described MTs are as those who have superior preparation, exceptional teaching strategies, motivation and communication skills, sound curriculum knowledge, interpersonal competence, and classroom management proficiencies. Furthermore, master teachers are perceived as effective teachers, staff developers, stimuli of curriculum leadership and the strong provider of instructional leadership.

Therefore, master teachers have distinctive criteria of their roles and responsibilities in the school system. They believe to have pedagogic skills to improve their instruction, develop their teaching strategies and enhance performance quality of students.

“Education is the key to success”, this clearly defines education as a potential instrument for nation building and the determining factor in the success of a country's productivity and competitiveness. It has become the critical instrument to respond to the call of globalization and the rapid advances in technological innovation. Nevertheless, Dipolog City Schools Division took a glimpse of its educational system, its capacity and ability to address this dire need.

The division of Dipolog City has been always in full support to the DepED’s Vision and Mission as prioritized: to Improve the Quality of Learning and Instructional Delivery, to Improve Access and Efficiency and to Strengthen Internal System of Governance. This priority is captured in the Acronym – “DESIREs”, where;

- D** Decreased Drop-Out Rate
- E** Experiential Learning Strengthened
- S** Solved problems on Non-numerates
- I** Increased MPS of learners
- R** Resource Generation enhanced through partnerships
- E** Enhanced instruction (ECE, SPED, Elem. & Sec. Levels, ALS)
- S** Synergized Performance Indicators

With the foregoing, this Division has identified strategies and major activities to form part of its governance and operation to achieve DESIREs in the next five (5) years which are, namely: (a) School-Based INSET/LAC Sessions; (b) School Heads Supervisory Visits/Conferences; (c) School Governing Council (SGC) participation, Supplementary Feeding; (d) School Innovations through Action Research; (e) Textbooks and Instructional Materials; (f) Improvement of School Facilities (BRIGADA ESKWELA/PTA Projects/Adopt-A-School Program); (g) Regular Assessment of Learners; (h) Pre-School, IPED, MADRASA, Literacy Classes (ALS); (i) Remedial Instruction; and (j) Tracking of Students at Risk, Fund Management.

In consonance with the DepED mandate, the Division of Dipolog City aims to produce globally competitive individuals through the provision of quality basic education services and rational utilization of resources.

Teachers upgrade and keep abreast in applying proven effective methods of teaching. To name, Independent and Cooperative learning Project Method are the common strategies used by teachers in facilitating lessons. Portfolio Products are the basis of determining the performance of learners.

School leaders and master teachers require conducting a well – planned instructional development such as school in-service training and school learning action cell that promote and enhance the capabilities or skills of teachers towards their instructional practices.

Furthermore, master teachers are required to facilitate to prepare weekly plan plus activities, supervise, interact, and support regularly with teachers, mentor co-teachers in content

and skills difficulties, and capacitate teachers in development programs. To name the most important ways in capacitating the development program of teachers are through classroom observation, learning action cell (LAC) sessions, and individual coaching. In these three areas where teachers' weaknesses are being strengthened and improved to address the diverse needs of their learners (Tanglao, 2017).

This is where the springboard of the researcher's attempt to determine the effect of mentoring skills of master teachers on instructional practices of teachers in the entire division of Dipolog City where it came from and to know the outcome of academic performance of students.

LITERATURE REVIEW

Teachers play a crucial role in nation building. Through quality teachers, the Philippines can develop holistic learners who are steeped in values, equipped with 21st century skills, and able to propel the country to development and progress. This is in consonance with the Department of Education (DepEd) vision of producing: "Filipinos who passionately love their country and whose values and competencies enable them to realize their full potential and contribute meaningfully to building the nation" (DepEd Order No. 36, s. 2013).

Evidences show unequivocally that good teachers are vital to raising student achievement, i.e., quality learning is contingent upon quality teaching. Hence, enhancing teacher quality becomes of utmost importance for long-term and sustainable nation building.

The Department of Education institutionalized the importance of the role of master teachers. DepEd Order No. 42, series of 2017, the PPST defines professional practice expected of teachers across career stages (Beginning, Proficient, Highly Proficient, and Distinguished). Master teachers are expected to be at the Highly Proficient career stage.

McKinney (2016) supported that master teachers are a highly skilled professional educators who share significant leadership responsibilities and authority with the school administrative team. Primary responsibility is to work with the principal, to analyze student data and create and institute an academic achievement plan for the building. Master teachers lead cluster groups, and provide demonstrations lessons, coaching and team-teaching to fellow teachers. Master teachers collaborate to develop and to determine the adoption of learning resources and research-based strategies to increase student performance.

Carolan & Guinn (2007) as cited by Romero et al. (2016) highlighted that master teachers should have pedagogic approaches which involve offering personalized scaffolding, using flexible means to reach defined ends, mining subject-area expertise, and creating a caring classroom in which differences are seen as assets. These skills apply to both students and the development of colleagues, and Carolan & Guinn (2007) stress the need for teacher development, notably through mentoring and coaching.

Mohana, P. and Enoch, A. (2017) strongly believed that master teachers play a supportive role of supervisor, motivator for learning with a less experienced and knowledgeable individual, to facilitate personal and professional progress. Master teachers create an opportunity to promote excellent teaching profession through purposeful sharing of effective instructional practices, peer coaching and mentoring, and creating a collaborative learning that enhances teaching process of teachers and improves the learning progress of students (UFT, 2015). MTs have the critical role in teachers' development where it makes a remarkable difference in helping the teachers to realize potential and enable them to grow.

As stressed by Archibong, F. I. (2012) as cited by Sangalang, L. A. (2018), master teachers as highly skilled instructional leaders find ways to assist in carrying out their skills and responsibilities by assisting teachers in facilitating student learning through functional lesson plan of activities and appropriate, adequate and updated instructional techniques and materials. Gabriel (2005) supported that master teachers ensure that teachers feel supported while increasing their knowledge of best teaching practices and student achievement.

Furthermore, Fideler & Haselkorn as cited in the study of Roehrig, A. et al. (2007) affirmed that a popular approach to reduce challenges of teachers face, enhance the quality of their teaching, and improve the achievement of the students is to provide support via master teachers' mentoring. Mentoring can provide teachers with access to more experienced teachers who act as sounding boards, guides, and counselors. Roehrig, A. et al. (2007) reinforced that in general, mentoring skills of master teachers have several goals, including improving teaching performance, increasing retention of promising beginning teachers, promoting personal and professional well-being, and compelling standards for student learning.

Instructional support by master teachers with mentoring skills fosters the development of the knowledge and skills needed by teachers to succeed in the classroom. Assistance with lesson planning, advice on classroom management, instruction-related advice and feedback help with assessing student work and other activities that promote teachers' instructional knowledge and skills. It can be hypothesized that this type of support impacts not only teachers' competence but also the quality of instruction and students' academic performance (Richter, D. et al. 2013).

Norman, P. J. and Feiman-Nemser, S. (2005) believed that the impact of mentoring not only depends on appropriate matches, time, and training, but also on the expectations that master teachers and new teachers hold for one another and what they actually do together. Norman and Feiman-Nemser added that master teachers expected to provide teachers psychological support, technical assistance, and guidance about the local customs and policies in education. These skills serve as a substantial and meaningful influence on teachers' instructional practices which lead to arise inevitably the academic performance of the students.

Furthermore, Norman and Feiman-Nemser emphasized master teachers who see their work in educational terms have a clear idea of the kind of teaching they want to foster. Master teachers

regard teachers as learners and think about how to help them improve a principled teaching practice. Expert master teachers have a kind of bifocal vision, keeping one eye to the immediate needs of teachers in terms of instruction and one eye on the ultimate goal of meaningful and effective learning for all students.

Hirsh, S. (2009) supported that good teaching occurs when master teachers on teams are involved in a cycle in which they analyze data, determine student and adult learning goals based on that analysis, design joint lessons that use evidence-based strategies, have access to coaches for support in improving their classroom instruction, and then assess how their learning and teamwork affects student's achievement.

Moreover, Van Ginkel, G. et al. (2015) asserted that master teachers hold mentoring strategies: (1) master teachers as co-thinking with teachers, and (2) master teachers as co-learning with teachers. Master teachers as co-thinking with teachers exhibits the ability of master teachers to use direct conversation techniques such as probing, summarizing and responding to teacher input and concerns. It is a skill to facilitate teacher learning about their own practice and how to improve it. Meanwhile, master teachers as co-learning with teachers is a skill that master teachers do so on professional learning as a process of knowledge construction through joint inquiry into practice. It recognizes that learning to teach is a process of integrating different forms of knowledge into a personal, practical, professional knowledge base for teaching; a process that requires reflection and dialogue for the interactive reconstruction of knowledge about teaching and learning over an extended period of time. It has been an implicit that these skills constitute development of teaching strategies of teachers and improve the academic learning performances of students.

Parker-Katz, M. and Bay, M. (2008) emphasized that a central and climactic part of a teacher preparation program remains field experiences, and master teachers who mentor teacher candidates in their classrooms play a key role. Mentoring skills with pedagogical approaches of the master teachers are being explored as a potential mode of professional development, as an avenue for improving practice, as a strategy for increasing academic performance of students, and as a catalyst for social change. Mentoring is typically viewed and presented as a process that has the potential to impact the teaching profession in significant and academic learning of students in positive ways.

Furthermore, master teachers establish that their pedagogical skills are deemed highly valuable in understanding the relationship between teaching and learning.

Mentoring can be powerful. Castanheira's (2016) meta-synthesis of thirty-seven (37) papers on mentoring in education revealed that mentoring can lead to teachers' increased job satisfaction, better use of classroom time, increase academic performance of the students, and higher levels of confidence. Glazerman et al. (2010) supported those mentoring skills of master teachers such as; (1) train and mentor teachers, (2) create techniques and programs to enhance

teaching and learning, and (3) conduct staff development workshops have great influence to instructional practices of teachers and pupils' achievement.

In mentoring, according to Marciano, E. et al. (2019) accentuated that master teachers possess and can demonstrate pedagogical knowledge, connecting theories to practice and modeling effective teaching. Master teachers provide "living examples" of good teaching and model and encourage reflection on practice. They see learning as reciprocal and their relationship with teachers as collaborative. Thus, mentoring creates possibilities not only for supporting the professional growth of teachers, but the growth of teaching practices of teachers. Furthermore, it affects the pupils' academic performance.

According to Portner (2005) as cited by Williams I.R. (2012) stated that mentoring skills of the master teachers such as providing technical assistance in applying varied teaching techniques, mentors co-teachers in content and skills difficulties, assisting in action research and serving as a resource and consultant to teachers facilitate instructional improvement and promote student learning.

Furthermore, Allen (1998) as cited by Stanulis, R.N. and Floden, R. E. (2009) affirmed that intensive mentoring of master teachers prepares and helps teachers to enhance student achievement through development of effective balanced instructional practices. Thus, mentoring skills place emphasis on engaging new teachers in joint inquiry to understand the importance of learning from practice while providing tools useful for teaching, including observation, feedback, and analysis of student work. Fletcher et al., (2005) added that master teachers who have substantial preparation and when the mentoring skills are instructional and standard based, teachers can also have a significant impact on student achievement.

Indeed, the literature herein formed the basis for this study on determining the effect of mentoring skills of master teachers on instructional practices and pupils' academic performance.

II. Methodology

This section presents the discussion of the method used, research environment, respondents of the study, research instrument, validation of the instrument, scoring procedure, data gathering procedure, and statistical treatment of the data in this study.

Research Method

The descriptive survey and correlational methods of research were utilized in the study with the aid of the questionnaire checklist. The data were gathered through this research instrument. A correlational analysis was performed to determine the significant relationship between the variables in the study.

Research Environment

This study was focused to the twenty-seven (27) elementary schools that have master teachers in Dipolog City Division, namely: Upper Dicastal Integrated School, St. John Elementary School, Dicastal Elementary School, Minaog Elementary School, Sicayab Elementary School, Gulayon Integrated School, Dipolog Pilot Demonstration School, Dipolog SPED Center, Barra Elementary School, Estaka Central School, Turno Elementary School, Sta. Isabel Elementary School, Sta. Filomena Integrated School, Miputak East Central School, Galas Elementary School, Laoy Olingan Elementary School, Olingan Elementary School, Sta. Cruz Elementary School, Olingan South Elementary, Punta Central School, Sinaman Integrated School, Sangkol Elementary School, Cogon Elementary School, Diwan Elementary School, Pamansalan Elementary School, Guinsangaan Elementary School, and San Jose Elementary School.

Respondents of the Study

This study considered twenty-seven (27) master teachers, two hundred seventy (270) elementary teachers and three hundred twenty-nine (329) grade six pupils enrolled in the different elementary schools of Dipolog City Division.

Research Instrument

The study utilized standardized survey questionnaires on mentoring skills of master teachers as cited in the study of Laude, T. M. et al., (2018) about “Master Teachers as Instructional Leaders: An Exploration of School Leadership Capacity in the Division of Biliran”. The questionnaires compose of four (4) parts.

Part I contained the personal profile of the respondents. It categorizes in terms of age, sex, highest educational attainment, length of service as master teacher, and number of seminars/training attended in instructional leadership.

Part II contained the mentoring skills of master teachers namely; mastery of the subject matter skills, teaching strategy skills, classroom management skills, evaluation skills, and mentoring skills.

Part III contained the instructional practices of teachers based on (DepEd – IPCRF).

Part IV focused on the final rating of Grade - six pupils in twenty-seven (27) elementary schools of Division of Dipolog City.

Validation of the Instrument

To make sure that the test was good of quality, its validity and reliability were carefully taken into consideration. The research instrument was referred to the adviser to ask for his acceptance, adoption and utilization of the instrument for this study. This instrument was also

referred to three experts in questionnaire construction to pass judgment on the face validity and reliability.

The instrument was no longer subject to reliability and construct validity testing since the instrument that was used in this study was a standardized instrument.

Data Gathering Procedure

A letter was sent to the Chairperson and the Dean of the Graduate School of St. Vincent's College Incorporated, Dipolog City seeking for endorsement to the Schools Division Superintendent of Division of Dipolog City to gather data by administering the instrument of the study.

A letter of the researcher together with the endorsement letter from the Schools Division Superintendent was sent to the offices of the principals of respective schools asking for approval to gather data by administering the instrument to the respondents. Upon approval, the researcher personally administered the instrument to the respondents.

After the respondents answered, the questionnaires were immediately retrieved. After the retrieval, the responses were tallied, tabulated, computed, and interpreted.

Scoring Procedure

To draw out the responses of the respondents on the mentoring skills of the master teachers along their subject matter skills, teaching strategy skills, classroom management skills, evaluation skills, and mentoring skills the five-point Likert Scale format was employed as follows:

5 – Highly Skillful. This is a rating given to statement where provisions are mastered as exceedingly exercised.

4 – Skillful. This is a rating given to statement where provisions are mastered as almost perfectly exercised.

3 – Moderately Skillful. This is a rating given to statement where provisions are mastered as moderately exercised.

2 – Less Skillful. This is a rating given to statement where provisions are mastered as exercised below the moderate level.

1 – Not Skillful. This is a rating given to statement where provisions are mastered as not exercised.

Scoring was done by multiplying “highly skillful” by 5; “skillful” by 4; “moderately skillful” by 3; “less skillful” by 2; and “not skillful” by 1. Weighted mean was described based on the Study of Antiquina (2012) as cited by

Luza-Tabiolo, C.D. L. (2018) as follows:

Scale	Range	Level/Implication
5	4.21 – 5.00	Highly Skillful/Very High Effect
4	3.41 – 4.20	Skillful/High Effect
3	2.61 – 3.40	Moderately Skillful/Moderate Effect
2	1.81 – 2.60	Less Skillful/Slight Effect
1	1.00 – 1.80	Not Skillful/No Effect

On the other hand, to draw out the responses of the respondents on the instructional practices of teachers, the five-point Likert Scale format was employed as follows:

5 – Always Practiced. This is a rating given to statement where provisions are exceedingly exercised or performed.

4 – Often Practiced. This is a rating given to statement where provisions are almost perfectly exercised or performed.

3 – Sometimes Practiced. This is a rating given to statement where provisions are moderately exercised or performed.

2 – Rarely Practiced. This is a rating given to statement where provisions are exercised or performed below the moderate level.

1 – Never Practiced. This is a rating given to statement where provisions are not exercised or performed.

Scoring was done by multiplying “always practiced” by 5; “often practiced” by 4; “sometimes practiced” by 3; “rarely practiced” by 2; and “never practiced” by 1. Weighted mean was described as follows:

Scale	Range	Level/Implication
5	4.21 – 5.00	Always Practiced/Very Highly Effective
4	3.41 – 4.20	Often Practiced/Highly Effective
3	2.61 – 3.40	Sometimes Practiced/Moderately Effective
2	1.81 – 2.60	Rarely Practiced/Less Effective
1	1.00 – 1.80	Never Practiced/Not Effective

Statistical Treatment of Data

The following statistical tools were used in the study: frequency, percentage, rank, weighted mean, Mann Whitney – U test, Kruskal-Wallis H Test, and Spearman Rank-Order Correlation Coefficient (r_s).

Frequency and Percentage. These were used to find out the profile of the respondents in terms of age, sex, highest educational attainment, length of service as master teachers and number of seminars/training attended in instructional leadership. Percent was calculated by getting the frequency of each category divided by the total number of respondents.

$$\% = \frac{f}{N} \times 100$$

Where: % = percent
 f = frequency
 N = number of cases

Weighted Mean. It was employed to find out the extent of effect of mentoring skills of master teachers on teachers’ instructional practices, level of teachers’ instructional practices and level of pupils’ academic performance. Computation was performed by getting the product of the weight of the scale and the frequency of each scale divided by the total respondents using the formula:

$$\text{Weighted Mean} = \frac{\sum WX}{N}$$

Where: \sum = Summation
 X = Frequency of each scale
 W = Weight of each scale
 N = Total Number of Respondents

Mann Whitney – U Test. It was used to test the significant difference in the extent of effect of mentoring skills of master teachers on teachers’ instructional practices when grouped according to profile. The formula for the Mann Whitney – U Test is:

$$U = \sum Ri - \left[\frac{n(n+1)}{2} \right]$$

Where: U = Mann – Whitney U_{stat}
 n = No. of items
 $\sum Ri$ = Sum of item ranks

Kruskal-Wallis H Test. It was used to test the significant difference in the extent of effect of mentoring skills of master teachers on teachers’ instructional practices when grouped according to length and educational qualification. Post hoc analysis was conducted when significant

difference exists among variables tested to determine where the difference lies with Bonferroni-Adjusted significant level using Wilcoxon Signed Rank Test.

Spearman Rank-Order Correlation Coefficient (r_s). This was used in testing the significant relationship between the extent of effect of mentoring skills of master teachers on the teachers' level instructional practices and significant relationship between the extent of the effect of mentoring skills of master teachers on teachers' instructional practices and the level of pupils' academic performance, with the formula:

Spearman Correlation

$$-1 \leq r_s \leq 1$$

The guide for interpreting the correlation coefficient ρ as suggested by Cohen, West, and Aiken (2014) were as follows:

Value	Size	Interpretation
± 0.50 to ± 1.00	Large	High positive/negative correlation
± 0.30 to ± 0.49	Medium	Moderate positive/negative correlation
± 0.10 to ± 0.29	Small	Low positive/negative correlation
± 0.01 to ± 0.09	Negligible	Slight positive/negative correlation
± 0.00		No correlation

The data which were collected for this study were encoded and analyzed using Statistical Package for the Social Sciences (SPSS version 17.0), Statistical Minitab (Version 12 and 13), Simplified Statistics for Beginners Software, Microsoft Excel Data Analysis ToolPak: Statistical tests were set at 0.05 level of significance.

III. Results and Discussion

This section presents the brief summary of the whole study, the findings of each problem, the conclusions and the recommendations based on the data gathered and analyzed.

SUMMARY

This study described the mentoring skills of master teachers on teachers' instructional practices, instructional practices of teachers, and pupils' academic performance. This study also determined if the mentoring skills of master teachers have an effect on the teachers' instructional practices, and pupils' academic performance.

Specifically, this study sought answers to the following questions:

1. What is the profile of master teachers in terms of:
 - 1.1. sex,
 - 1.2. age,
 - 1.3. highest educational attainment,
 - 1.4. length of service as master teachers,
 - 1.5. number of seminars/training attended on instructional leadership?
2. What is the extent of effect of mentoring skills of master teachers on teachers' instructional practices along:
 - 2.1. mastery of the subject matter skills,
 - 2.2. teaching strategy skills,
 - 2.3. classroom management skills,
 - 2.4. evaluation skills, and
 - 2.5. mentoring skills?
3. Is there a significant difference in the extent of effect of mentoring skills of master teachers on teachers' instructional practices when grouped according to profile?
4. What is the level of teachers' instructional practices?
5. Is there a significant relationship between the extent of effect of mentoring skills of master teachers on the teachers' level of instructional practices?
6. What is the level of academic performance?
7. Is there a significant relationship between the extent of effect of mentoring skills of master teachers on teachers' instructional practices and the level of pupils' academic performance?

Descriptive and correlational analysis were used in the study through the use of survey questionnaires. The respondents of the study were the twenty-seven (27) elementary master teachers, two hundred seventy (270) elementary teachers, and three hundred twenty-nine (329) grade 6 pupils from all schools in the Dipolog City Division.

Two research instruments were used in this study. One instrument was used to gather information about the profile of master teachers. The second instrument was used to determine the mentoring skills of master teachers on teachers' instructional practices on mastery of the subject matter, teaching strategy, classroom management, evaluation, and mentoring. It was also used to determine the instructional practices of teachers and pupils' academic performance.

Descriptive analysis were made by classifying the respondent groups according to demographic profile. Correlational analysis were used to determine the relationship between the variables. The statistical methods used to analyze and interpret the results were the frequency, percent, weighted mean, standard deviation, Mann-Whitney U Test, Kruskal-Wallis H Test, and the Spearman Rank-Order Correlation Coefficient.

FINDINGS

The classification, analysis and interpretations of the gathered data revealed the following findings:

1. On the profile of master teachers

Six (6) or 22.2% of the master teachers were males and twenty one (21) or 77.8% were females. More than a majority of female master teachers participated in this study.

One (1) or 3.7% of the master teachers was 30 years old or below, two (2) or 7.4% were 31 – 35 years old, two (2) or 7.4% were 36 – 40 years old, three (3) or 11.1% were 41 – 45 years old, six (6) or 22.2% were 46 – 50 years old, and thirteen (13) or 48.1% were 51 years old or over. Over 70% (aggregate of age groups 46 – 50 years old and 51 years old or over) of the master teachers belong to the middle age group.

Eighteen (18) or 66.7% of the master teachers have master's degree units, five (5) or 18.5% have master's degree, three (3) or 11.1% have doctoral degree units, and one (1) has a doctoral degree. Majority of the master teachers have master's degree units.

Ten (10) or 37.0% of the master teachers have 1 – 5 years in the master teacher position, seven (7) or 25.9% have 6 – 10 years, three (3) or 11.1% have 11 – 15 years, one (1) or 3.7% has 16 – 20 years, and six (6) or 22.2% have 21 or more years in the master teacher position.

Twelve (12) or 44.4% of the master teachers have attended seminars/training in instructional leadership 5 time or below, four (4) or 14.8% have attended 6 – 10 times, six (6) or 22.2% have attended 11 – 15 times, and five (5) or 18.5% have attended 16 or more times on seminars/training in instructional leadership.

2. On the mentoring skills of master teachers

The mentoring skills of master teachers had a 'very high effect' on teachers' instructional practices along mastery of the subject matter, teaching strategy, classroom management, evaluation, and mentoring.

The master teachers were highly skilled in the mastery of subject matter, teaching strategy, classroom management, evaluation, and mentoring that was enough to enhance the teachers' instructional practices.

3. On the difference in the extent of effect of mentoring skills of master teachers on teachers' instructional practices when grouped according to profile

There was no significant difference in the extent of effect of mentoring skills of master teachers on teachers' instructional practices when grouped according to sex. There was a significant difference in the extent of effect of mentoring skills of master teachers on teachers' instructional practices when grouped according to age. There was a significant difference in the extent of effect of mentoring skills of master teachers on teachers' instructional practices when grouped according to educational attainment. There was no significant difference in the extent of effect of mentoring skills of master teachers on teachers' instructional practices when grouped according to length of service. There was no significant difference in the extent of effect of mentoring skills of master teachers on teachers' instructional practices when grouped according to number of seminars/training attended on instructional leadership.

4. On the level of instructional practices of teachers

The teachers were very highly effective in their instructional practices. The teachers were not only knowledgeable of content but also effective in instruction.

5. On the relationship between the extent of effect of mentoring skills of master teachers on the teachers' level of instructional practices

There was a significant relationship between the extent of effect of mentoring skills of master teachers on the teachers' level of instructional practices.

6. On the academic performance of pupils

The level of academic performance of the pupils was 'outstanding'.

7. On the relationship between the extent of effect of mentoring skills of master teachers on teachers' instructional practices and the level of pupils' academic performance

There was no significant relationship between the extent of effect of mentoring skills of master teachers on teachers' instructional practices along mastery of the subject matter, teaching strategy, classroom management, and evaluation and the level of pupils' academic performance. However, there was a significant relationship between the extent of effect of mentoring skills of master teachers on teachers' instructional practices along mentoring and the level of pupils' academic performance.

IV. Conclusion

Through the findings of this study, the following conclusions were reached:

The mentoring skills of master teachers have a very high effect on teachers' instructional practices. The teachers' instructional practices were very highly effective and the pupils' academic performance was outstanding. The mentoring skills of master teachers significantly and highly influence the teachers' instructional practices. Master teachers who were very highly skilled enhanced the teachers' instructional practices to be very highly effective. However, the mentoring skills of master teachers along mentoring has a moderate significant effect on pupils' academic performance.

Specifically, this study concluded the following:

1. educational attainment and age of master teachers were more skilled in mentoring teachers' instructional practices;
2. the master teachers were highly skilled in the mastery of subject matter, teaching strategy, classroom management, evaluation, and mentoring that was enough to enhance the teachers' instructional practices;
3. the perceived effect of mentoring skills of master teachers on teachers' instructional practices was dependent on master teachers' educational attainment and age;
4. the teachers were not only knowledgeable of content but also effective in instruction;
5. the master teachers' mentoring skills significantly influence the teachers' level of instructional practices;
6. the pupils had a commendable academic performance; and
7. the mentoring skills of master teachers along mentoring on teachers' instructional practices moderately influence the pupils' academic performance.

REFERENCES

- [1] Aderibigbe, S. (2014). Mentoring as a collaborative learning journey for teachers and student teachers: A critical constructivist perspective, *Teacher Education Advancement Network Journal*, University of Cambria, Vol. 6, pp, 17-27.
- [2] Alig-Mielcarek, J.M. and Hoy, W.K. (2005). *Instructional leadership: Its nature, meaning and influence*. Educational Leadership and Reform, pages 29-51. Information Age Publishing.
- [3] Antiquina, R.C. (2012). *Managerial effectiveness of chiefs of police in relation to the law enforcers' performance*. Unpublished Thesis, Jose Rizal Memorial State University, Main Campus, Dapitan City.

- [4] Babadjanova, N. (2020). Effective classroom management techniques for curriculum of 21st Century, Science and Education Scientific Journal, Volume 1, Issue 7, Chirchik State Pedagogical Institute.
- [5] Bagaipo, E. A. (2012). High school administrators' competency profile, leadership effectiveness and schools' performance in the three divisions of Zamboanga del Norte, Dipolog and Dapitan Cities. Doctoral Dissertation, St. Vincent's College Incorporated, Dipolog City.
- [6] Blythe, JM (2014). The influence of a train-the-trainer professional development on teacher perceptions of science integration and inquiry-based instruction. University of Florida, ProQuest Dissertations Publishing, 2014.3647812.
- [7] Bird, L. and Hudson, P. (2015). Investigating a model of mentoring for effective teaching. *Journal of teaching effectiveness and student achievement*. 2(2), 11-21.
- [8] Borg, S. (2015). *Teacher cognition and language education: Research and practice*. Bloomsbury Academic an Imprint of Bloomsbury Publishing Plc. London.
- [9] Bowman, M. (2014). Teacher mentoring as a means to improve schools. *Bu Journal of Graduate Studies in Education*, Volume 6, Issue 1.
- [10] Bush, T. et. al. (2016). Master teachers as teacher leaders: Evidence from Malaysia and the Philippines, *International Studies in Educational Administration*, pp. 43.
- [11] Caballero, C., Abello, R. & Palacio, J. (2007). Relación de burnout y rendimiento académico con la satisfacción frente a los estudios en estudiantes universitarios. *Avances en Psicología Latinoamericana*, 25(2), 98- 111. Recuperado de <http://www.scielo.org.co/pdf/apl/v25n2/v25n2a7.pdf>
- [12] Cambria, E. (2006). A study of the qualities of effective teachers. Seton Hall University ProQuest Dissertations Publishing, 2006.3226821.
- [13] Callahan, J. A. (2016). Encouraging retention of new teachers through mentoring strategies. *The Delta Kappa Gamma Bulletin, International journal for professional educators*, Vol. 83 - 1.
- [14] Carolan, J. and Guinn, A. (2007). Differentiation: Lessons from master teachers: Improving instruction for students with learning needs. *Educational leadership* 64(5): 44 – 47.
- [15] Castanheira, P.S.P. (2016). Mentoring for educators' professional learning and development: a meta-synthesis of IJMCE volumes 1-4. *International journal of mentoring and coaching in education*, 5 (4), 334 – 346, doi:10.1108/IJMCE-10-2015-0030.
- [16] Chang, C. (2007). Evaluating the effects of competency-based web learning on self-directed learning aptitudes. *Journal of Computers in Mathematics and Science Teaching*, 26 (3), 197-216.
- [17] Coldwell, M. (2017). Exploring the influence of professional development on teacher careers: A path model approach. *Teaching and Teacher Education*, 61, 189-198. <https://doi.org/10.1016/j.tate.2016.10.015>.
- [18] Cohen, J., Cohen, P., West, S.G. and Aiken, L.S. (2013). *Applied multiple regression/correlation analysis for the behavioral science*. Routledge, New York.
- [19] Department of Education Teaching as South Australian Government Schools CRICOS Provider Number: 00018A, 2016, Blackwood Primary School.SA.GOV.AU.
- [20] Department of Education (DepEd) Order No. 8, series of 2015. Policy guidelines on assessment in the K to 12 Basic Education Program.
- [21] Department of Education (DepEd) Order No. 36, series of 2013. Department of Education Vision, Mission, and Core Values (DepEd VMV).

- [22] Department of Education (DepEd) Order No. 42, series of 2019. National adoption and implementation of the Philippine Professional Standards for Teachers (PPST).
- [23] Dingal, E.C. (2013). Modified strategies in teaching Mathematics: Effects on pupils' performance. Unpublished Thesis, Jose Rizal Memorial State University, Main Campus, Dapitan City.
- [24] Djamarah, S.B. (2010). Strategi belajar mengajar. Cetakan keempat. Jakarta, Indonesia: Rineka Cipta.
- [25] Finkelstein, L.M., Allen, T.D., and Rhoton, A. (2003). An examination of the role of age in mentoring relationships. DOI:10.1177/1059601103028002004.
- [26] Fletcher, S., Strong, M., and Villar, A. (2005). An investigation of the effects of variations in mentor-based induction on the performance of students in California. Paper presented at the seventh national New Teacher Center Symposium, San Jose, CA.
- [27] Gabriel (2005). Teaching leaders to lead teachers: Educational administration in the era of constant crisis. *Advances in Educational Administration*, Volume 10. page 126.
- [28] Galleto, P.G. (2015). Institutional streams as manifested along lines of leaders' competence in relation to schools' achievements. Unpublished Dissertation, Jose Rizal Memorial State University, Main Campus, Dapitan City.
- [29] Given, L. (2008). *The Sage Encyclopedia of Qualitative Research Methods*. Vol. 1 & 2. Los Angeles: SAGE Publications Inc.
- [30] Glazerman, S., et al. (2010). Impacts of comprehensive teacher induction: Final results from a randomized controlled study. NCEE 2010-4028. National Center for Education Evaluation and Regional Assistance.
- [31] Gul, T., Demir, K., and Criswell, B. (2019). Constructing teacher leadership through mentoring: Functionality of mentoring practices in evolving teacher leadership. *Journal of Science Teacher Education*.
- [32] Hina, Q., et al. (2017). Impact of gender, qualification and experience on mentoring programs in public sector Universities of Islamabad. *Bulletin of Educational and Research*, Vol.39, No.3 pp. 183-201.
- [33] Hirsh, S. (2009). A new definition. *Theme/Learning Schools*. National Staff Development Council, Vol. 30, No. 4.
- [34] Hue, M. T. and Li, W. (2008). *Classroom management: Creating a positive learning environment*, Hongkong University Press.
- [35] Huizing, R. (2012). Mentoring together: A literature review of group mentoring, mentoring and tutoring: Partnership in learning, 20:1, 27-55, DOI:10.1080/13611267.2012.645599.
- [36] <https://core.ac.uk/download/pdf/249336371.pdf>.
- [37] <https://ijern.com/>, Mastery of the Subject Matter
- [38] <https://www.successconsciousness.com>.
- [39] <https://www.edglossary.org/professional-development>.
- [40] Ibrahim, A. & Nambiar, R.M.K (2013). What master teachers do: A case study of planning, facilitating, role modelling and developing materials., *International Education Studies*.
- [41] Ikromova, A.A. (2020). The concept of pedagogical skills, its role and importance in teaching. *The American Journal of Applied Sciences*, doi:10.37547/tajas, Volume 2, Issue 8 – 17.
- [42] International Standardization Organization (ISO) 9001-2008

- [43] Kamamia, L.N. et. al. (2014). To establish the extent to which the subject mastery enhances quality teaching to student – teachers during teaching practice, Mount Kenya University, Thika, Kenya, Vol. 2, No. 7, International Journal of Education and Research.
- [44] Keiser, et al. (2016). The relationship between teachers’ instructional practices, professional development and student achievement, Nebraska.
- [45] Kent, A.M., Green, A.M., and Feldman, P. (2012). Fostering the success of new teachers: Developing lead teachers in a statewide teacher mentoring program. *Current Issues in Education*, 15(1), 1-17.
- [46] Kutilek, L.M. and Earnest, G.W. (2001). Supporting professional growth through mentoring and coaching. *Journal of Extension*, 2001-archives.joe.org.
- [47] Laude, T. M. et. al. (2018). Master teachers as instructional leaders: An exploration of school leadership capacity in the Division of Biliran, *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, Volume 40, No. 1, pp. 50-74.
- [48] Litchfield, B.C. and Dempsey, J.V. (2015). Authentic assessment of knowledge, skills, and attitudes. *New Directions for Teaching and Learning*.
- [49] Makavec, D. (2018). The teacher’s role and professional development. *International Journal of Cognitive Research in Science, Engineering and Education*, Vol. 6, Iss. 2, pp. 33 - 46.
- [50] McClean, W. A. (2009). The master teacher: Role and responsibilities in the reform process. www.eric.ed.gov.
- [51] McCombs, B. L. (2007) as cited by Zepeda SJ.(2013). Instructional leadership for school improvement. *International Studies*.
- [52] McDonald, T. (2013). *Classroom management: Engaging students in learning*. (2nd Ed.) Australia and NZ: Oxford University Press.
- [53] McKinney, E. (2016). Master teacher (Teacher Advancement Program). Caddo Parish School District.
- [54] Mohana, P. and Enoch, A. (2017). Mentoring for career development – a strategic approach for employee retention abstract. *MIM International Journal of Management Research*. Vol – 3, ISSN 2394 – 6997.
- [55] Moore, D. (2015). Master teachers as instructional leaders: An instrumental case study. Liberty University ProQuest Dissertations Publishing, 2015.3712713.
- [56] Murray, M. (2002). *Beyond the myths and magic of mentoring: How to facilitate an effective mentoring process*. Josey – Bass A Wiley Company, San Francisco, New and Revised Edition.
- [57] Nair, A.K. (2019). Mentoring process – an advanced practice in developing women entrepreneur skills. University of Kerala. ijrar.org.
- [58] National Academic Press (2020). *Curriculum and pedagogy: The what and the how of early childhood education*. Chapters 5 and 9, pages 182 -183.
- [59] National Institute for Excellence in Teaching (2013). “National institute for excellence in teaching”, Retrieved from www.niet.org.
- [60] Nessipbayeva, O. (2012). The competencies of the modern teacher, Docent at Suleyman Demirel University, Almaty, Kazakstan.
- [61] Norman, P.J. and Feiman-Nemser, S. (2005). Mind activity in teaching and mentoring. *Teaching and Teacher Education* 21, 679-697. Doi:10.1016/j.tate.2005.06.006.
- [62] Orlich, Harder, Callahan, Trevisan, Brown, Miller (2013). *Teaching strategies: A guide to effective instruction*. Wadsworth Cengage Learning. Belmont, CA, USA, 10th Edition.

- [63] Palardy, G.J. and Rumberger, R.W. (2008). Teacher effectiveness in first grade: The importance of background, attitudes, and instructional practices for student learning. American Educational Research Association. SAGE. Publications. DOI:10.3102/0162373708317680.
- [64] Parker-Katz, M. and Bay, M. (2008). Conceptualizing mentor knowledge: Learning from the insiders. *Teaching and Teacher Education*, 24, 1259-1269.
- [65] Pather, P. (2010). Master teacher experiences of mentoring teachers. University of KwaZulu-Natal. HSS/0884/2009.
- [66] Performance Evaluation Handbook for Teachers (2015). nctq.org/dmsView/70-07, pp. 7-8.
- [67] Petrovska, S. et. al. (2018). Mentoring in teaching profession. *International Journal of Cognitive Research in Science, Engineering and Education*, Vol. 6, Issue 2. DOI:10.5937/ijcrsee1802047P.
- [68] Program for International Student Assessment (2018). Average score of Mathematics, Science and Reading. www.factsmaps.com/pisa-2018-worldwide-ranking-average-score-of-mathematics-science-reading
- [69] Rahman, F., Jumami, N.B., Akhter, Y., Chisthi, S., and Ajmal, M. (2011). Relationship between training of teachers and effectiveness teaching. *International Journal of Education*. Ijbsnet.com.
- [70] Rambuyong, R.D. (2019). Instructional coaching skills of school heads: Its relation to teachers' instructional practices and pupils achievement in the three divisions of Zamboanga Sibugay, Zamboanga del Norte, and Dapitan City. Unpublished Dissertaion, St. Vincent's College Incorporated, Dipolog City.
- [71] Results-Based Performance Management System (RPMS) in the Department of Education (2019).
- [72] Richter, D., Kunter, M., U., Ludtke, O., and Baumert, J. (2011). Professional development across the teaching career: Teachers' uptake of formal and informallearning opportunities. *Teaching and Teacher education*, 27(1) 116 – 126. DOI:10.1016/j.tate.2010.07.008.
- [73] Robinson, V., Lloyd, C., and Rowe, K. (2008). The impact on student outcomes: An analysis of the differentiated effects of leadership types. *Educational Administration Quarterly*, 44, 635-674.
- [74] Roehrig, A. D., Bohn, C. M., Turner, J. F. and Pressley, M. (2007). Mentoring beginning primary teachers for exemplary teaching practices. Florida Center for Reading Research, Florida State University, 227 N. Bronough St., Suite 7250, Tallahassee, FL 32301 USA.
- [75] Romero, M. et., al. (2016). Master teacher as teacher leaders: Evidence from Malaysia and the Philippines. ISEA. Volume 42, Number.
- [76] Sangalang, L. A. (2018). Mentoring skills and technical assistance of master teachers in Pangasinan. *PSU Multidisciplinary Research Journal*, psurj.org.
- [77] Salgur, A.S. (2014). Importance of mentoring in teacher training. *Lumira South-East Europe University*, Vol.5 No.2, p.48.
- [78] Sawchuk, S. (2015). Teacher evaluation: An issue overview, *Education Week*.
- [79] Schatter, R. (2012, November 1). Brave new world of teacher evaluation: District administration, 43 – 47.
- [80] Stanley, C.A. (2015). Modeling mentoring across race/ethnicity and gender: Practices to cultivate the next generation of diverse faculty. books.google.com.

- [81] Stanulis, R. N. and Floden, R. E. (2009). Intensive mentoring as a way to help beginning teachers develop balanced instruction. *Journal of Teacher Education*, 60; 112, DOI:10.1177/0022487108330553.
- [82] Steinert, Y. (2011). Commentary: Faculty development: The road less traveled. *Academic Medicine*, 86 (4), 409– 411.
- [83] Luza-Tabiolo, C.D. (2018). University Management System: Organizational Commitment and Performance Influences. *International Review of Social Sciences (IRSS)*. Volume 6, Issue (8). August 2018. pp 439-445. https://www.researchgate.net/publication/360755612_University_Management_System_Organizational_Commitment_and_Performance_Influences
- [84] Tameme, E. (2016). Theorizing conceptual framework. *Asian Journal of Educational Research*. Vol. 4, No. 2, ISSN 2311 - 6080.
- [85] Tanglao, C. E. (2017). The importance of technical assistance. *Sun Star Pampanga*. www.pressreader.com.
- [86] Teacher Career Pathways, UFT (2015). “Master teacher role”. www.uft.org.
- [87] Tizon, J. (2012). Administrators’ competence in the five areas of academic stream and school development of the Three Divisions of Zamboanga del Norte, Dipolog and Dapitan Cities. Unpublished Dissertation. Saint Vincent’s College, Dipolog City.
- [88] Trends in International Results in Mathematics and Science (2019). www.timss2019.org/reports
- [89] Van Ginkel, G., Verloop, N. and Denessen, E. (2015). Why mentor? Linking mentor teachers’ motivations to their mentoring conceptions, *Teacher and Teaching: theory and practice*, DOI: 10.1080/13540602.2015.1023031.
- [90] Williams, I.R. (2012). The impact of induction/mentoring on job satisfaction and retention of novice teachers. Bowie State University, ProQuest LLC.
- [91] Willcox, M. del R. (2011). Factores de riesgo y protección para el rendimiento académico: Un estudio descriptivo en estudiantes de Psicología de una universidad privada. *Revista Iberoamericana de Educación*, 55(1), 1-9. Recuperado de <http://www.rieoei.org/deloslectores/3878Wilcox.pdf>
- [92] Xia, J. (2020). Teaching for student learning: Exploration of teaching strategies based on protocol-guided learning. *Zhenjiang Experimental School, SIEF*, Vol. 5 No.1.