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SCHOOL HEADS' COACHING AND MENTORING COMPETENCE ON TEACHERS' CLASSROOM MANAGEMENT, INSTRUCTIONAL DELIVERY AND RESEARCH AND INNOVATION ENGAGEMENT

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ABSTRACT

This research study was conducted to ascertain the competency level of school heads coaching and mentoring on teachers' classroom management, instructional delivery and research and innovation engagement. Thus, this study will serve as the basis for sustainability plan of the Deped program. The respondents of the study were the three hundred thirty-eight (338) teachers in the 3rd Congressional District, Schools Division of Iloilo. They were chosen through multi-stage sampling technique. A duly validated and pre-tested instrument was used to ascertain the level of school heads coaching and mentoring competence on teacher's classroom management, instructional delivery and research and innovation engagement. Frequency, percentage, mean and standard deviation were utilized as descriptive statistical tools; MANOVA was used as inferential statistical tools with level of significance set at .05. The findings revealed that the level of school heads coaching and mentoring competence on teacher's classroom management, instructional delivery, and research and innovation engagement when taken as an entire group and when classified according to age, sex, civil status, length of service and educational attainment was expert. Also, the findings revealed that there was no significant difference in the competency level of school heads coaching and mentoring on teacher's classroom management, instructional delivery, research and innovation engagement when grouped as to age, sex, civil status and educational attainment. However, when grouped as to length of service, significant difference existed in the competency level of school heads coaching and mentoring on teacher's classroom management, instructional delivery, research and innovation engagement.

Keywords: *Coaching and Mentoring, Classroom Management, Instructional Delivery, Research, Innovation*

1. Introduction

Republic Act No. 10533, otherwise known as Enhanced Basic Education Act of 2013 mandates that every student must be given an opportunity to receive a quality education that is globally competitive based on pedagogically sound curriculum that is at par with international standards.

The teachers, being the frontliners in the teaching-learning process, must be equipped with the necessary knowledge, skills, and competencies to be able to deliver the teaching-learning process effectively. This must be satisfied to ensure that the enhanced basic education program meets the demand

for quality teachers to meet the content and performance of the K to 12 curriculums (Regional Memorandum #039, s. 2021).

Consequently, this scenario apparently and perennially resulted in learners' poor achievement levels as revealed in Quarterly Examinations conducted by teachers themselves in the Schools District of Lambunao East specifically on the Integrated schools.

The study of Bayani and Guhao (2017) revealed that student learning is seriously compromised with out-of-field teaching based on the experiences of non-Filipino majors on out-of-field teaching.

Porsch and Whannell (2019) also indicated that qualified, in-field teachers obtain better student outcomes than unqualified, out-of-field teachers. As cited in DepEd Coaching Guidebook, many different studies have analyzed the sources of the problem and these analyses have pointed to a range of interrelated factors such as an inadequate curriculum, and the poor preparation of teachers in terms of content and pedagogy.

Thus, teachers are in need to be refreshed, trained and should be given time for the provision of technical assistance through coaching and mentoring sessions. This is because quality teaching is one of the most important factors in raising students' achievement and school performance. For teachers to be effective as possible, they must continually expand their knowledge, skills, research and innovation engagement to deliver the best educational practices. They, therefore, need to learn more to help students learn at the highest levels through coaching and mentoring from their school heads.

However, one important consideration that defies the above purpose is that some teachers in the field have been assigned to teach or have been teaching in subjects, not in their field of specialization due to the shortage of teachers on the specified subjects. Hence, non-majors are compelled to handle subjects in which they were not academically prepared to teach just to meet the needs of the curriculum.

Moreover, all schools need great school heads, who will serve as the pillar of the learning institution. Improved school performance lies on their coaching and mentoring skills, leadership abilities and competencies which really matter more today. School Heads are now expected to be managers, coaches, legal experts, and, simultaneously, instructional leaders. One major emphasis in the educational arena in the early 21st century has been the continuing demand for greater accountability to increase student performance. School heads play an important role focusing on how to improve the student performance through their instructional leadership by means of coaching and mentoring the teachers to further improve their competencies in teaching as well as in their engagement on research and innovation.

Thus, to address the situation, school heads need to scaffold teachers in their journey of continuous improvement who need technical assistance in order to be equipped with the needed understanding of the concepts to teach the competencies efficiently and effectively. Through school heads competence in coaching and mentoring on teachers' classroom management, instructional delivery and research and innovation engagement, productive learning outcomes are expected to be achieved.

Consequently, this study aimed to find out the coaching and mentoring competence of the schools' heads on teachers' classroom management, instructional delivery and research and innovation engagement.

Theoretical Framework of the Study

This study accords on the experiential learning theory and learning by doing dictum by which leadership-focused coaching, and mentoring support to teachers were given emphasis. This states that the learning process is whereby created through experience. This also explains that concrete experience, reflective observation, abstract conceptualization and active experimentation between the coach and the coachee and mentor and the mentee greatly affects the effectiveness of the learning outcomes because teachers were more likely to reflect on experiences which focused on classroom teaching and those who engaged in reflection more often were more likely to report a change to their professional practice (Camburn and Han, 2015).

Additionally, this theory suggests that novice teachers should receive instructional support, coaching, and feedback, this study suggests a similar approach but one with a focus on instructional leadership skills and responsibilities (Gray, 2017).

Align with the experiential learning theory, Vygotsky's Scaffolding theory will also serve as the backbone of this study that helps the teachers understand new information and content by working with an educator who has a better knowledge of the material. The theory states that teachers learn more quickly when working collaboratively with someone who is more equipped with equitable knowledge

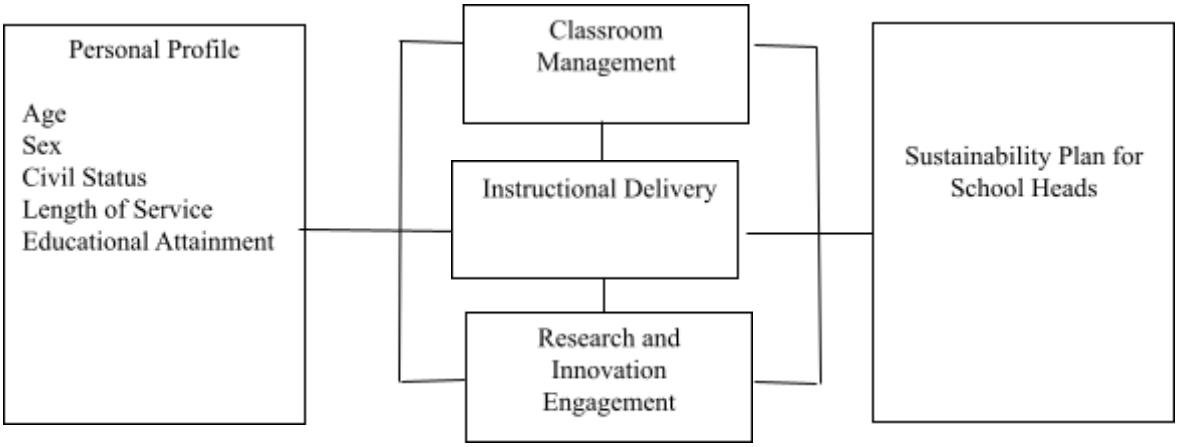
compared to learning the content alone. The person teaching the content scaffolds the material in small manageable steps, supporting the teachers in expanding their knowledge.

To address this gap, the researcher undertook an investigation regarding the school heads coaching and mentoring competence that influence teachers' classroom management, instructional delivery and research and innovation engagement in school. This factor is said to theoretically contribute to the key performance of teachers in the 3rd Congressional District, Schools Division of Iloilo.

The paradigm in Figure 1 illustrates the essence of the study.

Figure 1

Relationships on School Heads' Coaching and Mentoring Competence on Teachers' Classroom Management, Instructional Delivery, Research and Innovation Engagement



Statement of the Problem and Hypotheses

This study was conducted to determine the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, research and innovation engagement as perceived by the teachers in the 3rd Congressional District, Schools Division of Iloilo.

Specifically, this study geared to answer the following questions:

1. What is the competency level of school heads' coaching and mentoring on classroom management as perceived by teachers as an entire group and when classified according to their age, sex, civil status, length of service and educational attainment?

2. What is the competency level of school heads' coaching and mentoring on instructional delivery as perceived by teachers as an entire group and when classified according to their age, sex, civil status, length of service and educational attainment?

3. What is the competency level of school heads' coaching and mentoring on research and innovation engagement as perceived by teachers as an entire group and when classified according to their age, sex, civil status, length of service, and educational attainment?

4. Are there significant differences in the competency level of school heads' coaching and mentoring on classroom management, instructional delivery, and research and innovation engagement as perceived by teachers as an entire group and when classified according to their age, sex, civil status, length of service, and educational attainment?

5. What sustainability plan can be developed for school heads based on the findings of the study?

In view of the aforementioned problems, this hypothesis is advanced:

1. There are no significant differences in the competency level of school heads' coaching and mentoring on classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers when classified as to their age, sex, civil status, length of service, and educational attainment.

Definition of Terms

For the purpose of clarity and precision, the following terms are given conceptual and operational meanings:

Classroom Management -- is the process of organizing and running the classroom business as well as maintaining order through the control of teachers. This also includes setting up and maintaining the teaching environment so that the educational goals can be achieved (Savage & Savage, 2019).

In this study, classroom management refers to the teacher's managerial skills in keeping the classroom conducive for learning. It was measured using the coaching and mentoring on classroom management instrument.

Coaching -- is performance driven and encourages the individual or individuals being coached to perform in their day-to-day roles. It is an act to provide guidance to a client on their goals and helps them reach their full potential. It is often shorter-term and may be as short as a quick 10- or 15-minute conversation or even more (Sheridan, 2022).

In this study, coaching refers to school heads' initiative in helping the teachers on their classroom management, instructional delivery and research and innovation engagement.

Competence -- involves the application of knowledge and skills in the performance of a range of varied work activities as well as in a wide variety of contexts, most of which are complex and non-routine. It as a substantial degree of personal responsibility and autonomy geared towards a significant range of fundamental principles across a wide and often unpredictable variety of contexts (Bafadal, et., al. 2019).

In this study, competence refers to the degree of the school heads ability to mentor and coach teachers in the 3rd Congressional District, Schools Division of Iloilo.

Innovation -- is the core action for the development and productivity of any economic activity. It can bring benefits such as saving time, costs,
and products and use them more effectively. It is one of the most iimportant factors of economic development, production, creation of a variety of products and in making management decisions (Timur & Antanas, 2017).

In this study, it refers to the teachers' skills in doing innovations in the District of the Lambunao East. It was measured using the coaching and mentoring on innovation engagement instrument.

Instructional Delivery -- refers to the process showing every activity that the teacher and the learner does in a classroom setting (Lukman, 2021).

As used in this study, it refers to the school heads' coaching and mentoring on the teachers' instruction used in teaching the pupils inside the classroom. It was measured using coaching and mentoring on instructional delivery instrument.

Mentoring -- refers to the relationship in which a more experienced colleague uses his or her more excellent knowledge and understanding of the work or workplace to support the development of a more junior or inexperienced member of staff. It can be a long-term partnership in which the learner sets the goals, which may alter over time (Gamage, et., al. 2021).

In this study, it refers to the school heads' technical assistance and support given to the teachers in their classroom management, instructional delivery and in making innovations and researches.

Research -- is the scientific field of study that examines education and learning processes and the human attributes, interactions, organization, and institutions that shape educational outcomes (DepEd Order No. 16, series 2017).

In this study, it refers to the knowledge, capacity, and research skills of the school administrators in the Third Congressional District, Schools Division of Iloilo. It was measured using coaching and mentoring on research engagement instrument.

School Head -- School heads are agents of change who contribute a major impression on the educational milieu through their information-sharing methods, creating supportive social connections, participating in mentoring programs, and fostering progress (Aquino, Afalla, & Fabelico, 2021).

In this study, school head refers to the teacher in charge, head teachers and principals in the Third Congressional District, Schools Division of Iloilo.

Significance of the Study

The outcome of the study would enlighten the Department of Education, school administrators, teachers, pupils, community and future researchers of the school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement.

Division Superintendent. This study would be beneficial to Division Superintendent in assessing and evaluating the results and performance of the school leaders specifically on the coaching and mentoring aspects. By validating the results, formulation of policies and guidelines pointing to the teachers' classroom management, instructional delivery and research and innovation be given appropriate attention.

Schools District Supervisors. The findings of the study would update the District Supervisors of the department on the status of the teachers' performance in the new normal. This could serve as basis in formulating action plans in terms of improving and enhancing such policies in the department specifically in making innovations and researches.

School Heads. With the outcome of this study, they might able to strengthen and improve their mentoring and coaching skills in coping such changes in the department.

Teachers. Teachers are said to be the responsible person in molding the lives of the children. The outcome of this study might help them adapt change and apply relevant learning from the learning they gained through coaching and mentoring. Their delicate duty embellished with sense of commitment in their line of work would become intimately connected with building the nation's future through their effort in helping learners to become 21st century learners.

Learners. The findings of this study would be beneficial to the pupils for they would be informed of the efforts and participation of the teachers in using different strategies in teaching and adopt new approaches in uplifting the mode of standards in teaching the learners.

Parents. Parents would be able to help reinforcing authorities to enhance their children's performance. The revelations of teachers in their effort to effect learning might be a point of realization for parents to ponder. It might pose a challenge for them to strengthen their support to their children by giving follow up to their lessons and spending time with them to do reading and teaching at home. Their parental support could further improve their children's interest in scholastic activities, particularly in reading and answering the modules to improve their entire academic performance.

Community. The community is essential to a progressive education. It could likewise benefit from the study. The community is the source of input as well as the recipient of the outputs of the school as it operates in the delivery of academic services to the learners. Quality education provided by the teachers would eventually encourage the community to join hands and support the school in its quest for quality education.

Future researchers. This study might be beneficial to future researchers, who are interested in pursuing further studies on the school heads' coaching and mentoring on teacher' classroom management, instructional delivery, research and innovation engagement.

Delimitation of the Study

This study focused on the school heads' coaching and mentoring practices on teachers' classroom management, instructional delivery and research and innovation engagement in the 3rd Congressional District, Schools Division of Iloilo, of the school year 2022-2023.

The participants of the study were the three hundred thirty-eight (338) teachers in the 3rd Congressional District determined using the online sampling calculator(N=2732). Multi-stage sampling technique was employed in selecting the respondents of the study. The respondents were classified according to their age, sex, civil status, length of service and educational attainment. The dependent variables are the school heads' coaching and mentoring practices on teachers' classroom management, instructional delivery and research and innovation engagement.

The data from the teachers were obtained by means of a duly validated and pre-tested researcher-made questionnaire. Mean, standard deviation, frequency count and percentage were employed for descriptive analysis. MANOVA was used for the inferential analysis with level of significance set at 0.05 alpha.

2. Literature Review

School Heads' Coaching and Mentoring on Teachers

Coaching and mentoring are the key strategies that support teachers at any stage of their careers, and for improving teacher practice (Institute of Medicine and National Research Council, 2015). These are relationship-based, adult learning strategies intended to promote and support an educator's awareness, refinement, professional learning process and classroom effectiveness of the teacher.

Coaching and mentoring terms are often used interchangeably. Mentors tend to focus on the development of an individual teacher, and goals for the mentoring process are typically agreed upon mutually between the mentor and teacher with whom she works–although mentoring relationships may differ, depending on the structure and intention of the particular mentoring program. In contrast, coaches may work either with individuals or with classroom teams as a group, and/or may have a set agenda for classroom improvement Whitebook, & McLean (2017).

As stated by Phillips, (2016), coaching and mentoring are both practical and supportive ways to support teacher learning and growth on their job. Ideally, mentors and coaches are skilled in the craft of teaching, creative in problem-solving, keenly observant, able to reflect on their practice, and flexible in relating to other adults. Like the teachers with whom they work, they should be receptive to learning new information about the process of teaching, and willing to take risks in order to grow. Mentors and coaches serve as guides and role models who talk openly and directly with teachers about their work, help them improve their skills in interacting with children and families, and provide information and feedback. They should have significant experience in teaching young children, with a command of relevant skills and knowledge to share with their mentee about pedagogy and how children learn. Preparation for either role should include education and training not only in child development, and the care and teaching of young children, but also in adult learning, culture, teacher development and reflective and experiential practice.

Subsequently, Rajagani (2014) reiterated that mentoring and coaching are not the same but have similar attributes. Mentoring involves helping mentees (teachers) in areas of professional (career, skills and expertise) and personal (work/life balance, self-confidence, self-perception, personal influences) by building relationship. Mentors in general are much more experienced and are able to share with their mentee (beginner teacher) about school policies, rules, school culture, protocols; teaching methods and related issues, provide personal and professional support; and guide the new teacher through reflection and professional discussions.

On the other hand, coaching involves goal-focused learning by unleashing the true potentials of a teacher in the area of self-knowledge, behavioral change, and career development.

In short, mentoring is relationship oriented and coaching is task orientated. Coaching is a subset of mentoring. Hence, mentoring and coaching is not a simple task that any mentor could fulfil without adequate training or input about how coaching is done. A mentor's job as a coach requires some form of proper coaching methods.

In the same instance, Okoye et al. (2021) emphasized the importance of services like tutoring in influencing teachers' engagement with coaching and mentoring programs, underscoring the need for support in improving educational outcomes.

Polikoff (2015) likewise stated that coaches should not try to address everything that a teacher could improve in any one coaching session; coaches need to know how to identify a specific focus for the coaching discussion that will best help the teacher to move forward in his/her understanding of effective teaching. Smith and Ingersoll (2014) reported that beginner teachers working with trained mentors had higher level of teaching skills than with mentors who were not trained.

Align with this, research claims that mentors lack mentoring skills and needs upskilling to play their roles effectively (Sweeney, 2017) . Some aspects to be considered as preparation before a mentor starts mentoring officially or before the beginner teacher arrives are: a) Knowledge about teacher induction; b) Developing trust and rapport; c) Classroom management and effective teaching; d) Adult learning; e) Adult and teacher development; f) Observation skills; g) Interpersonal skills; h) Problem solving skills; i) Specialized training; i) Planning and time management.

Sweeney (2017) also added that it is advisable for schools to always have well trained mentors in hand. A well-trained mentor can be matched with the most suitable beginner teacher candidate. A mentor, being an experienced teacher is likely to take up other support tasks or staff development programs as well e.g. head of department, classroom teacher, subject panel head, event managers, student training and student affair consultants. Currently, mentors are deprived of appropriate mentoring and coaching skills training or professional development for themselves before they can even provide the coaching for beginner teachers. There are no valid evidence showing continuous support and trainings for mentors to pursue an established or critical role as a mentor.

Similarly, Heineke (2013) asserted that coaching plays a pivotal role in enhancing teachers' professional learning, particularly in areas such as classroom management and instructional delivery.

Hence, the mentor plays two major functions in supporting teachers—career and psychological. The career functions include providing the mentee with sponsorship, exposure and visibility, coaching, protection, and challenging assignments. The psychological functions provide the mentee with role modelling, acceptance and confirmation, counselling, and friendship. Therefore, coaching skills which includes modelling is essential to a mentor. Mentoring beginner teachers demands for clear directions and professional trainings in order to develop beginner teachers' quality of teaching (career) and improve their personal life (psychology).

Naturally coaching and mentoring take place within the context of a formal program, though, teachers can form mentoring or coaching relationships on their own, possibly with their supervisor, school head or even other colleague. And because coaching and mentoring is the same as supervision. Supervisors can be pedagogical leaders for teachers, and they can apply many of the strategies used by coaches and mentors. They have also roles and responsibilities that interfere with a purely mentoring or coaching relationship–namely, the authority to fire, promote and make other decisions about a person's job status and livelihood. Mentors often do some assessment and evaluation of teachers, but not in a way that is linked to the novice teachers continued employment (Hakro, 2020).

In addition, Carmel and Paul (2015), added that the primary role of a mentor or coach is to provide support and encouragement so that a teacher has someone to rely on and turn to. Trust is essential for a close relationship, along with willingness by both partners to reveal themselves and to risk making mistakes. They also mentioned that the goals and structures of a mentoring or coaching program can have implications for responsibilities of mentors and coaches, including who the teachers are, and why they are participating. This chart below looks at a number of ways in which these programs can differ.

According to Abugre (2017) as cited by Hakro (2020), the purposes of coaching and mentoring are: a) To provide collegial support through informal peer relationships; b) To support the attainment of higher education (e.g., as a student teaching placement) and/or teacher certification; c) To support mentees who are new to the field; d) To improve retention of new and/or experienced teachers; e) To help translate coursework theory into classroom practice; e) To further a quality improvement initiative, such as a Quality Rating and Improvement System or the pursuit of program accreditation; and f) To help implement a curriculum or training model.

Along with this, Ali, et al. (2018) said that the desired outcomes of coaching and mentoring activities in school are: a) Achieve higher quality ratings or classroom assessment scores; b) Improve specific instructional practices such as literacy and numeracy; c) Improve specific child outcomes such as language development.

Furthermore, the study of Vikaraman, et al. (2017) stated that coaching and mentoring play a vital role in the development and managing human resources of any organization to deliver abundance of advantages. They also added that building and investing on human capital aspects like skills, education, health and training are integral needs of sustaining a successful organization and its growth in the long run. Any form of investment onto the people who work in or for an organization or institution will someway or other be an advantage either for the individual or the organization they are committed to. In the case of up-skilling employees, job embedded professional development measures are becoming popular and in demand. Thus, programs like as expert knowledge sharing, professional learning community, coaching and mentoring, in-house trainings or workshops, peer reviews, lesson studies (in schools), on job observations and action research are some measures taken within the job context like in the educational platform, the area of human resource development places ample importance to training and development of teachers and administrators from pre-service to the in-service stage, hiring teachers, induction programs, teacher and principal assessment and quality standards.

Consequently, under the premises of human resource management and development in education, the success of the education system relies heavily on teacher quality (Omebe, 2014) . This is further taken up by the Ministry of Education continuous reforming initiatives prioritizing teacher education practices and continuing professional support for teachers from the early years of teaching to retirement. Local teacher education researches are highly reaching out to share best practices and contemporary classroom instructions to teachers' professional learning and development needs in various socio-cultural contexts. He also added that in order to develop an improved mentor coaching training framework to: a) Present the characteristics of mentoring and coaching for beginner teachers; b) Describe the needs for training in coaching skills for beginner teacher mentor based on the Kansas Coaching

Model; c) Describe the training areas that beginner teacher mentors need in order to improve mentoring and coaching practices; d) define how the school administrators and teacher leaders can support beginner teacher mentors need in order to improve mentoring and coaching practices.

Omede (2014) also implied some major concerning themes among education stakeholders in Malaysia who are taking heed in utilizing mentoring and coaching as one of the most effective and practical job embedded professional development program and support in schools nationwide. He also stated that mentoring programs greatly help improve the current status as well as set a benchmark for effective coaching practices and professional development training frameworks in classroom management of beginner teacher.

In today's classroom instructional coaching and mentoring have slowly been replacing traditional forms of teacher training and one-stop workshops. This is also to reduce financial constraints in organizing loads of teacher training programs, which finally goes to waste as it does not cater to what individually a teacher needs to improve or to be coached on. Similarly, in Malaysia, classroom instructional coaching is becoming popular replacing face-to-face workshops as a way to cut cost. According to Narishkin (2018) , coaching in schools has sparked growing interest for many reasons, two of which are especially relevant: a) A growing recognition that teacher quality is a critical factor in student success, and b) An equally growing recognition that traditional forms of professional development are ineffective.

In 1997 the 'instructional coaching' applying the partnership principles was introduced by Devine (2013). An instructional coach is one who utilizes effective teaching methodologies and provides on-site professional development training to address the needs of teachers (Devine, 2013). In 2013, the Department for Education and Skills (DfES) was already proposing that coaching has the power to transform teachers' professional learning. This was followed by a few other coaching models like content-focused coaching (Lochmiller, 2014), literacy or reading coaching (International Reading Association) and 'blended coaching. By the end of 2014, literacy or reading coaching was highlighted as a very hot topic in the Reading Today's What's Hot, What's Not for 2013 list. In 2013, a framework was documented to clarify the definitions of mentoring and coaching, and identify how best to use both in education (Park et. al., 2013). They defined three terms in education coaching: mentoring (a structured, sustained process for supporting professional learners through significant career transitions), specialist coaching (a structured, sustained process for enabling the development of a specific aspect of a professional learner's practice) and collaborative (co-) coaching (a sustained process between two or more professional learners to enable them to embed new knowledge and skills from specialist sources in day-to-day practice).

Lancer et al. (2016) introduced classroom management coaching and in 2017, his colleagues listed five different categories of educational coach: data-oriented coaching, student-oriented coaching, managerial coaching, and two teacher-oriented coaching models, one that works largely with individual teachers and another that works with groups in their research determined. Capstick et al. (2019) identified four approaches to Educational Coaching that are predominantly mentioned in the literature: peer-coaching, cognitive coaching, literacy coaching, and instructional coaching.

Coaching Approaches in Education

Coaching approaches in education can be presented with a variation in focus, duration and setting (Rhodes, 2013). Robinson, (2015) in their research determined five distinct categories of educational coach: data-oriented, student-oriented, managerial, and two teacher- oriented categories, one that works largely with individual teachers and another that works with groups. Data oriented coaching focuses on data and assessment-related tasks to facilitate the connections between data and instruction. Student-oriented coaching focuses directly with students rather than teachers. Managerial coaching focuses in managing systems within schools such as facilitating meetings and keeping up with paperwork. Teacher-oriented coaching focusses on supporting teachers individually and in small groups.

Abugre (2017) listed three distinct types of coaching models: directive (or instructive) coaching, facilitative coaching and transformational coaching. Directive coaching focusses on changing teachers' behaviors. The directive coach shows and shares her expertise by providing resources, making suggestions, modelling lessons and teaching how to do something but it seldom results in sustainability or internalization of learning. Facilitative coaching focuses on teachers learning new ways of thinking and being through reflection, analysis, observation and experimentation. The teachers' awareness on the importance to learn those new ways influences their behaviors. The facilitative coaches avoid sharing

expert knowledge but work in building on their existing skills, knowledge and beliefs to construct new skills, knowledge and beliefs that will form the basis for future actions. A foundation for facilitative coaching is cognitive coaching as they both focuses on exploring and changing the way the teachers behave by encouraging reflective practices and guiding teachers towards self-directed learning. Facilitative coaching is also influenced by ontological coaching as it focuses on exploring how the teachers' perceptions and attitudes influences their behavior and communication. Lastly, transformational coaching draws from ontology, incorporating strategies from directive and facilitative coaching, as well as cognitive and ontological coaching. Transformational coaching aims to change: (a) the teachers' behaviors, beliefs and being; (b) the schools in which the teacher works and the other teachers, students and administrators who are in the same school and (c) the broader educational or social systems.

Abugre (2017) also concluded by stating that this kind of coaching only works when the coach is engaged in a process of transforming his own behaviors, beliefs, and being, along with the teachers. Other researchers focused on directive coaching, reflective or responsive coaching and a balanced combination of directive and reflective coaching. Directive coaching is where the coach leads as an expert and focuses on predetermined practice or strategy whereas reflective or responsive coaching is where the coach and teacher engage collaboratively in coaching for reflection and the focus is teacher-centered. Some of these researchers' position directive and reflective coaching as a black-and-white dichotomy. However, the balance between both is believed to be most conducive to providing learning to teachers by building supportive relationships and simultaneously giving concrete suggestions about instructional practices that may enhance students' learning (Mertler, 2017).

To discuss the responsive and directive coach-teacher relationships, Richardson (2015) conducted grade-level focus groups interview with 24 coaches. The coaches categorized coaching as being either directive or responsive. They identified three ways of working as successful mechanisms for providing combined pressure and support: (a) shifting between responsive and directive moves within a single coaching session; (b) using protocols to guide individual and group coaching sessions; and (c) sharing leadership roles to align teacher, coach, and administrative goals (Richardson, 2015)). The coaches reported that by balancing responsive and directive coaching, it allowed them to build supportive relationships with teachers and simultaneously make suggestions about instructional practices.

Similarly, in another study investigating the role of coaches in the implementation of Reading First policy in USA, denoted that coaches influenced teacher learning and teacher change not only by providing support but also through pressuring and persuading. Undoubtedly, teachers responded more positively to persuasion rather than pressuring. The coaches in this study also played a key gatekeeping role to advice teachers on the policy aspects of Reading Wallace Foundation (2016). The study concluded by stating that the coaches used both the educative and political roles to mediate between Reading First policy and teachers' classroom practice.

However, in examining coaching discourse, conducted both an interpretive and structural analysis. She found that during one-to-one sessions, coaches showed a tendency to dominate the discourse by initiating 70% of the exchanges, offering 80% of the suggestions for later actions and contributing 65% of the total utterances. The study suggested that stakeholders should do their part in helping coaches to stay focused on the coaching goal of facilitating teacher learning in order to increase student achievement. For productive coaching to occur, coaches must respect, listen and build credibility with teachers, make themselves always available and visible among teachers, and maintain the trust/confidentiality with teachers. Coalition of Essential Schools (2016) investigated the experiences of first year literacy coaches and their negotiation of power as they are participating in literacy coach professional development and providing professional development opportunities to teachers. Data collection methods were two 60-minutes semi-structured interviews, observations, and artifacts (samples from participant reflection journals, documents from training sessions, and information about assignments) from five professional development sessions. The study concluded by suggesting coaches need quality professional development opportunities that include conversation around the emotional aspects of the coaching position.

Many other researchers have described several distinct approaches with unique goals and methods like, classroom management coaching (Arin, et. al. 2016), content-focused coaching and blended coaching. According to Eleyan (2013), coaching approaches that are still common in today's education systems are peer, like literacy coaching, cognitive coaching, and instructional coaching. It is critical to recognize that regardless of the form that coaching takes, they have been described with the same goal of having a knowledgeable other (the coach) collaborating with the teacher to provide individualized

development which will impact on student learning. In common it is a three-part process: pre-lesson discussion between the coach and the coached teacher followed by an observation of classroom practice of the coached teacher by the coach, and a post-lesson discussion to discuss and analyze what had been observed (Coalition of Essential Schools 2016).

The study of Al Hilali et al. (2020) explained that coaching and mentoring are part of educational or professional training to develop employees in the professions and play an essential role in the development of competencies. They also summarized the role of the coaches/mentors in helping coaches/mentees achieve their goals by working as a consultant, facilitator, and advisor. As to their experience, support, counseling, evaluation, feedback, and motivation were included in coaching and mentoring sessions. The coach/mentor must meet conditions such as experience and skills to communicate, help in setting goals, analyzing positions, making the necessary plans, and professional skills related to the candidate. All parties in this relationship should trust the other party and act honestly and responsibly by providing the required information and appropriate skills for the success of the activity.

Gray (2017) also listed the common features among the models of coaching:
(a) building relationship with teachers; (b) observing, modeling and advising in the classroom; (c) discussing classroom practices with teachers, provide support and feedback, and assist with problem-solving for classroom challenges; and (d) monitoring progress towards identified goals. They also emphasized that this form of professional development differs from the typical education professional development, which generally consists of one-shot activities with denial for exploration of the breadth or depth of any particular topic (Gray, 2017). Often, in most of the education system, full-time coaches are hired to provide on-site coaching and mentoring as components of job-embedded Continuous Professional Development (CPD) for teachers.

Aside from coaching, mentoring is also a widely recognized strategy to promote professional learning in a variety of professional sectors (Aspfors and Bondas, 2013; Kemmis et al., 2014; Menon, 2012; Trevethan, 2017). In teacher education, mentoring programs have been introduced to enhance teachers' professional experiences at different stages of their career, provide on-going and site-specific support for teachers' professional development and increase the retention rates of beginning teachers (Korhonen et al., 2017). Mentoring in teacher education may contribute to enhancing both motivation and competence, with implications for the quality of young people's learning and development, globally (Tang et al., 2015).

Mentoring is differently understood, conceptualized and theorized (Kemmis et al., 2014) across diverse professional contexts. These differences may lead to potential confusions, overlaps or 'borrowing' of approaches that are derived from a variety of disciplines supporting distinct practices. Kemmis et al. (2014) also argued that what may be confusing about mentoring is not a lack of theories but rather the existence of a plurality of theories. They explained further that distinctive theoretical perspectives have been developed by scholars, each contributing selected aspects.

While mentoring in initial teacher education (ITE) is often portrayed as a dyadic and unidirectional relationship, involving mentors supporting mentees to reach their goals, the importance of creativity and collaboration amongst all participants involved in the learning process, such as children and/or other professionals in the school (Mullen, & Klimaitis, 2021). Its relationships between two people can be collaborative; however, such collaboration may be limited to specific goals and purposes, different from forging wider collaborative relationships which may bring potentially new practices into existing settings (Aderibigbe, 2013, 2014). Hence, as recently indicated by Izadinia (2016), more research is needed to explore the extent and dimensions of collaborative mentoring experiences by focusing on the values and understandings of mentoring from the perspectives of teacher mentors and mentees. Located within an ITE context in Scotland, this study sought to explore the nature of collaborative mentoring relationships and how such relationships may be related to different theoretical dispositions towards mentoring. The study is significant in that it contributes to the developing body of knowledge about mentoring practices in ITE by offering further insights into collaboration in mentoring and the implications for teachers' learning in professional contexts.

Wang and Odell (2013) identified three dimensions of mentoring: humanistic, situated apprenticeship and critical constructivist perspectives. While the humanistic dimension is largely centered upon the psychological and personal aspects, the other two perspectives offer more explicit cues on the nature of professional relationships. More specifically, Wang and Odell (2013) brought to surface the

normative contexts in which professional relationships may develop, distinguishing between the bureaucratic-managerial and the participatory-involved approaches.

The first scenario points to asymmetric relationships between mentor and mentee, on the basis of either power or expertise; while the second scenario emphasizes mutuality and voice. When applied to the context of the classroom, the bureaucratic-managerial dimension locates student teachers in the role of 'visitors' in the school, who are expected to facilitate classroom activities as strictly instructed. This conception would align broadly with conceptions of mentoring as an apprenticeship process, where novice and student teachers are guided to develop professional knowledge by mature and experienced teachers (Aderibigbe, 2014). In the same view, Hobson and Malderez, (2013) acknowledged that the process sounds a sensible and practical way in which to induct and support novice teachers.

However, this author also noted that if mentoring is used as a means to induct beginning teachers into following standards, it may strain relationships and lead to situations where novice teachers may feel unwelcome or even bullied into conforming to an implicit model of what an ideal teacher should be like. Hobson and Malderez (2013) also reported that mentoring may hamper mentees' learning and professional development when mentors are judgmental while providing them with feedback on their practice.

Conversely, the participatory-involved process recognizes the potential for student teachers to engage in joint decision-making with teachers about activities conducted both within the classroom and more widely in the school. Rather than focusing exclusively on the student teacher as a new learner, the participatory-involved process places emphasis on the quality of the learning environments for beginning teachers; such environments are deemed to be empowering and enabling by the extent to which they support mentees with opportunities to work together with others as well as develop skills to do things for themselves (Tang, 2015).

This notion was argued by Trevethan (2017) who stated that the essence of this collaborative model is an understanding that close relationships and collaboration are valuable for both teacher and student teachers' learning. The model is also consistent with the constructivist perspective of mentoring where mentors and mentees can learn from each other to strengthen their professional development (Aderibigbe, 2014). Undoubtedly, a mentoring process guided by the apprenticeship disposition has its merits, in that student teachers can be inducted into school settings and assisted to understand the existing norms. However, it may not offer opportunities for student teachers to be creative and innovative if they have to comply with strict procedures (Geber, 2013).

In contrast, Aderibigbe (2013) found that mentoring can be more beneficial and tends to encourage more creativity amongst mentors and mentees when characterized by dialogue and collaboration. Taking these considerations into account, in this study we sought to further investigate the dimensions of collaborative mentoring in ITE, along with identifying factors contributing to their development. We draw upon earlier theoretical (Wang and Odell, 2013) and empirical (Aderibigbe, 2013) studies on mentoring as grounded in a critical constructivist approach, which is both participatory and collaborative in nature (Kemmis et al., 2014) and supported by an egalitarian structure for creating knowledge in context (Korhonen et al. 2005).

From this perspective, we recognize that mentoring is a multi-faceted and complex activity that is associated with some other forms of relationships such as coaching, facilitating, counselling, and networking (Izadinia, 2016). All such activities include different forms of collaborative learning amongst participants (Kutsyuruba, 2012), yet underlie the centrality of mutual respect and dialogue as key dimensions in collaborative mentoring in Education.

In this regard, Turner (2013) warned that collaborative dialogue may be counterproductive if there is no room for the exploration of multiple standpoints. So, in the first instance, collaborative mentoring processes may be characterized by a joint effort between mentors and student teachers to examine pedagogical knowledge, share ideas and generate new professional knowledge (Hughes et al., 2013).

Secondly, reflective practice, as it was first advanced by (Schön,1983 in Korhonen, et al. 2017), challenged the dominant technical–rational and positivist epistemological disposition which narrows down the opportunities for knowing and learning.

Thirdly, practitioners involved in collaborative dialogues can challenge their own implicit understanding of what is deemed to be 'regular practice' to explore different forms of professional practice and learning. In this sense, mentoring based on the critical constructivist approach may blend

guidance (that is given when necessary) with equal participation in class, including coordination between teachers and student teachers.

However, for a genuine collaboration informed by critical constructivist theory, mentors and student teachers need to be well disposed to the basic values and principles of professional collaboration (Hudson, 2013; Turner, 2013). For example, in this study, the term 'equal participation' is not used to suggest equality of status between experienced teachers and student teachers. Rather, it indicates equal participation where both teachers in the role of mentors and student teachers as mentees are empowered to collaborate actively and to contribute to effective teaching and learning. Consistent with this, Hobson and Malderez (2013) discussed at length the need for micro-level commitment through which mentors and mentees are open to learning from each other, valuing each other's knowledge, responsibilities, and contributions throughout the mentoring process.

Paramount to the process of equal participation is clarity of beliefs and perceptions about mentoring (Wang and Odell, 2013), so that mentoring practices can be more evidently located within particular theoretical and normative orientations.

Long, et al. (2012) explained that pre-service teachers might sometimes believe that good teachers should be able to teach alone, and that mistakes should be hidden in order to indicate effective performance. Being with somebody else in the classroom may thus be perceived as being uncomfortable or intrusive. Conversely, Aspfors and Bondas (2013) reported on the overwhelming feelings of anxiety and frustration when teachers operate at a distance from each other and in isolation. The transition to becoming a professional teacher would thus entail a strengthening of relationships through collaborative mentoring, allowing space for critical and creative dialogues.

Similarly, teaching assignments between mentor and novice teachers are typically regarded as necessary prerequisites for successful mentoring relationships. Yet, due to the personnel shortages and specialized teaching assignments in special education, it is not always possible to match novice special educators with veteran special educators. This multiple-baseline across behaviors study investigated specialized professional development and individualized coaching for general education teacher mentors. Outcomes assessed included the intervention's impact on the mentors' special education knowledge, mentors' ability to identify needed components of special education lesson delivery, and novice teachers' improvements in instructional practice.

Results indicated a functional relationship between the intervention and mentor knowledge as well as the ability to identify components of specialized instruction. Most important, novice special educators improved their instructional practices after being mentored by those who received the professional development and specialized coaching (Cornelius et al. 2019).

School Heads' Coaching on Teachers' Classroom Management

Classroom management is important to the whole education process because it offers students an ideal learning environment, helps prevent teacher burnout and makes students and teachers feel safer and happier. It involves more than just discipline and rules. It also entails organization, routines with which students come to feel comfortable, and positive attitudes on the part of teachers and students. A well-organized classroom with routines and rituals helps students feel more secure. Children need structure. The routines and rituals of a well-managed classroom allow more time for learning. Teachers spend more time teaching and less time getting class started. Students are more easily engaged and less distracted in an organized, well-managed classroom, so the learning environment is greatly enhanced (Writer, 2020).

Classroom management is intended to provide students with more opportunities to learn all of the things that a teacher does to organize students, space, time, and materials so that students´ learning can take place. Students should be able to carry out their maximum potential, which allows students to develop appropriate behavior patterns. Teachers must deal with unexpected events and have the ability to control student behavior, using effective classroom management strategies. Effective classroom management and positive classroom climate construction are essential goals for all teachers. Everything a teacher does has implications for classroom management, including creating the setting, decorating the room, arranging the chairs, speaking to children and handling their responses, putting routines in place (and then executing, modifying, and reinstituting them), developing rules, and communicating those rules to the students (Nagler, 2015).

Additionally, Nagler (2015) stated that learning is work of the head *and* work of the heart. A climate of fear can handicap all of the goals of higher learning. Children often learn first for the teacher,

to please the teacher and to obtain the teacher's pleasure in their learning, more than they learn for the intrinsic value they attach to the subject matter or tasks. Especially in the elementary school the teacher is very important for the children.

Furthermore, Cooper & Scott (2017) considered that classroom management is a top priority for teachers. Managing a classroom includes accounting for routines, schedules, physical arrangements, teacher–student relationships, learning dynamics, and instruction. Teachers who are skilled in classroom management foster a learning environment that promotes academic and social-emotional development (Meyers et al., 2017). Such classroom management skills require the ability to implement evidence-based practices that help students more readily engage in learning, be productive learners, maintain attention to learning, and demonstrate positive learner outcomes (Cooper et al., 2017; Dicke et al., 2015;). Expert teachers continually refine how they manage their classrooms, but new teachers may feel overwhelmed when managing a classroom of students with a range of individual needs for the first time.

Nationwide, teachers reported feeling underprepared to manage classrooms that include students with disabilities or students demonstrating problematic behaviors who disrupt the entire class (Coalition for Psychology in Schools and Education, 2019). For most teachers, preservice preparation includes one behavior management course. However, even if the instructor used effective pedagogies, this one course may not have been enough to master specific evidence-based classroom management best practices (Gable et al., 2012; Oliver et al., 2013).

Moreover, many new teachers are much less confident in promoting learner motivation and on-task behaviors when compared to veteran teachers (Hoy, 2013). At the same time, new teachers commonly report high levels of stress, which they attribute to struggles with behavior management and classroom discipline (Aloe et al., 2014).

Dicke et al. (2015) concluded that strong classroom management can counteract new teacher stress and offset the shock of a new teacher’s first classroom experience. Therefore, it is not surprising that new teachers nationwide, particularly new special education teachers, ask for mentorship, support, and additional training in classroom management (Fowler et al., 2019). Mentorship is a crucial aspect of teacher induction, and new teachers leave the profession much faster when they do not have mentorship (Gray & Taie, 2015). All too often, mentors are not available (Cornelius et al., 2019), and many new teachers are left searching for ways to improve their classroom management on their own. The good news is there are options for teachers that do not require maintaining expensive subscriptions or sifting through generic recourses. The purpose of this article is to provide new teachers and teacher educators with a prescriptive yet self-led approach to systematically improving classroom management practices.

One technique that supports professional growth is reflective practice through video analysis. Video analysis activities combine written self-reflections with video evidence and are common in many teacher education programs because such activities are easily tailored to specific learning contexts (Martin & Ertzberger, 2013).

Reflective practice is intended to be a meaning-making process that moves a learner from one experience into the next with deeper understanding of its relationships with and connections to other experiences and ideas (Gable et al., 2013).

Across several studies, teachers and teacher candidates engaged in reflection activities using video evidence and were able to improve elements of their teaching, such as (a) the variety of student praise statements given during a lesson, (b) the rate of opportunities for student responses, and (c) the ratio of praise to redirection statements (Coogle et al., 2019).

Teachers who reflect are more willing to try new approaches to meeting the needs of their students, but this is not achieved by superficial engagement in reflective practice, such as summarizing a lesson (Nagro et al., 2017). Teachers can benefit from structured approaches to meaningful reflective practice.

In mentoring teachers for classroom management, reflective practice is an important part (Council for Exceptional Children, 2015). Reflection activities can seem simple, but reflecting in a manner that extends beyond surface-level summarizing and promotes genuine professional growth is complex (Nagro, 2019). There are many approaches to reflecting, such as explaining, theorizing, confronting, or restructuring (Stockero, 2013) as well as endless aspects of a lesson to revisit. Without guidance, teachers have a difficult time focusing their reflective practice in meaningful ways (Nagro et al., 2017). Graphic organizers, such as the Reflection Matrix, can be used to structure reflective practices by outlining elements of teaching for consideration (cognitive) as well as approaches to thinking about these teaching elements (metacognitive).

Specifically, teachers can comprehensively review their practice by (a) describing their teaching choices, (b) analyzing why such choices were made, (c) judging the success of those choices based on student outcomes, and (d) applying insights to plans for future lessons. This systematic approach creates a cohesive, structured, and consistent learning experience where teachers can revisit the same elements of teaching over time to think more deeply about their decision making, rather than simply retelling events chronologically. Reflective practice is an individualized learning experience by design.

Align with this, effective classroom management is the process of organizing and conducting a classroom so that it maximizes student learning (Nagler, 2015). Oliver (2019) identifies classroom management as the essential teaching skill and suggests effective teachers minimize misbehaviours to reduce interruptions and create learning environments that allow for students' intellectual and emotional growth. Wong (2016) believed that classroom management is all of the things that a teacher does to organize students, space, time and materials so that student learning can take place. Effective teaching and learning cannot take place in a poorly managed classroom.

Staeker (2015) also suggests that classroom management involves teacher actions and instructional techniques to create a learning environment that facilitates and supports active engagement in both academic and social and emotional learning.

Gray (2016) argues that classroom management is more comprehensive than controlling student misbehaviour and administrating discipline. It involves planning, facilitating, and monitoring experiences that are conductive to high levels of learning for a wide variety of students. It also involves creating and sustaining classroom environments that are personally comfortable and intellectually stimulating. Flower, et al. (2017) assert that classroom management generally is conceived to includes all actions taken by the teacher to ensure order and effective time use during lessons. Hakansson (2015) identifies that classroom management has two distinct purposes: it seeks to establish an orderly environment so students can engage in meaningful academic learning and it aims to enhance student social and moral growth. Doolaard (2016) then explained that classroom management refers to creating a learning environment which support successful instruction that is arranging the physical environment, establishing rules and procedure, maintaining students' attention to lessons and engagement in activities.

Apparently, West (2016) mentioned that mentoring of teacher is not well understood and despite of many mentoring programs in teacher education, there is little consensus on the exact meaning of a mentor. He also added that it is common to find them being referred to as supervisors, coaches, and peer trainers. Furthermore, there is little consensus on the actual role that mentors play or what distinguishes mentoring from other forms of teacher support, and even how the mentoring process is managed (Cullingford, 2016).

However, there are common threads across different schools of thought that collectively provide an understanding of what teacher mentoring constitutes. It is a professional development strategy where a mentor who is more experienced in classroom instruction, support a teacher in improving their classroom practices by devising interventions customized to the needs of the specific teacher (Nel and Luneta, 2017; Australian Council for Educational Research, 2016). It is a formal relationship for supporting and encouraging professional learning that is based on trust between the mentor and the teacher (Rebecca, 2016). Teacher mentoring is a flexible process, allowing teachers to challenge themselves in ways that are specific to their diverse needs based on their context (Collet, 2016). The structure, content, duration, and intensity of the mentoring program varies widely from a single one-off meeting between a mentor and a teacher to frequent highly structured meetings over several years (Bold et al., 2017). In teacher mentoring, the mentor conducts classroom observations, hold a meeting with the teacher to reflect on the observations, and support the teacher in identifying strategies for improvement on areas that were found to be challenging (Australian Council for Educational Research, 2016).

Besides, mentors develop trustful relationships with the teachers that create an environment for instructional improvement (Irby et al., 2017). The overriding objective of the mentoring process is to advance a teacher to the proficient and expert levels of teaching (Wasonga et al., 2015). Meanwhile, the mentors need appropriate training and opportunities for discussing ideas, problems and solutions with other mentors (Holloway, in Muraya et al. 2020).

Furthermore, according to the National Foundation for the Improvement of Education in Muraya et al. (2020) the effects of mentoring to teachers is associated with improved teacher retention rates and improved pedagogical skills. It has a positive impact on teacher commitment, classroom instructional practices, and student achievement (Australian Council for Educational Research, 2016; Amin et al., 2018; Ochanji et al., 2017). This is because mentoring is an empowering process that enables teachers to

learn from their professional colleagues, reflect on their beliefs about teaching, and improve their classroom practices through gradual integration of theory and practice (Arnesson and Albinsson, 2017). Aside from the teachers, the mentors also benefit from the mentorship process in terms of self-satisfaction derived from helping others, earn respect, nurture collaboration, and gain new ideas (Ochanji et al., 2017; Wasonga et al., 2015).

Hence, classroom management and practices have the greatest contribution to student learning outcomes because the classroom is the venue where students and teachers interact and decisions as to what to do in this venue most strongly affect student learning outcomes (Wenglinsky in Muraya, 2020). Classroom practices are those teaching and learning activities and interaction processes within a classroom system that enable contextualization of the content that is taught and learnt (Li and Oliveira, 2015). Wenglinsky in Muraya, (2020) identifies 21 specific classroom practices in high school mathematics classrooms, while Li (2015) identifies eight themes of classroom practices. Classroom practices are characterized by elements and processes of teaching, with the elements being the goals, objectives, tasks, discourse, and interactions, while the processes are the planning for instruction, implementation of the plan, assessment, and reflection (Kahan et al., 2013). Therefore, effective classroom practices should focus on the intersection of the elements and processes of teaching and learning.

Moreover, planning for instruction within a specified time duration in a classroom calls for a teachers' competence in planning for learning objectives, appropriate instructional resources, interactions, and innovative learning activities (Broemmel et al., 2016). Innovative learning activities are a critical determinant of good classroom practice and their use improves classroom practice (Schrum, 2013). Such innovative activities include incorporating learners' previous experiences in planning for a lesson, use of locally available resources, use of project-based learning, and encouraging learners to apply knowledge and skills in solving problems in their surroundings (Schrum, 2013).

Moreover, ability to meaningfully engage learners through the learning activities, questions and answer interactions, experimentation, as well as practical activities defines good classroom practice. Furthermore, formative assessment and use of assessment results to improve learning, nurtures a culture of continuous improvement in the teaching profession (Twaweza, 2016). The various classroom practices that teachers adopt in engaging with learners play an important role in student understanding of concepts and learning outcomes (UNICEF, 2016).

School Heads' Mentoring and Coaching on Teachers' Instructional Delivery

Instructional Delivery refers to the interaction among the student, the teacher, the content, and the knowledge/skills/dispositions students will need for learning and collaborating with others in a diverse society and rapidly changing world. The process of instructional delivery involves applying a repertoire of instructional strategies to communicate and interact with students around academic content, and to support student engagement (Bailey, Ellis, Schneider, & Vander Ark, 2013).

It is a concept, guideline, approach, or main line to conduct instruction, measure and evaluation. Instructional strategy is one of crucial components to conduct instruction for accomplishing the instructional goals. To develop a better instructional strategy, the following instructional components need to be analyzed: learners, learning objectives, contents, learning context, overall context, condition and lecturers' skills in selecting the learning principles, technique to accomplish the learning objectives they needed. Designing instructional strategies focuses on both lecturers' teaching skills and learners' learning styles.

Lukman (2021) also added that instructional delivery are methods, strategies, approaches or even techniques that a teacher employ to deliver his/her subject matter of a lesson to the learners. It can as well be regarded as a representation of a pattern in which a lesson is to be presented. The process of instructional delivery must be based on stated objectives of the lesson, it is based on this that when the process of instructional delivery is over, then the opportunity to determine if the aim of the lesson has been achieved or not comes, which is the evaluation act that will tell if the lesson met stated objectives. Instructional delivery has been seen as the process showing every activity the teacher and the learner does in a classroom setting.

So, every effort that the teacher makes in order to have a fruitful time with the students by exposing the contents, employing methods, strategies, the pupils' interaction with the environment, resources available and even the evaluation process sums up to mean instructional delivery. When a teacher consciously utilizes his training, knowledge, skills and value and relays it in order to change the

behavioral position of the learner, he is carrying out instructional delivery. He further exclaimed that the essence of the use of different instructional delivery models is to enable the instructor (teacher) surmount the challenges on the organization and passage of the instruction to students who are assumed to have come from different backgrounds, therefore, possess different learning styles, pace and understanding the lessons based on their previous knowledge.

From the foregoing, it is clear to the researcher that one model of instruction will not be able to bring about an effective instructional delivery that can produce the kind of result desired from the learners. The nature of the subject will demand for the teacher to employ numerous models, methods, strategies, approaches or techniques to ensure that the learners learn indeed after every instruction.

Thus, effective instructional delivery rooted from regular conduct of coaching and mentoring to the teachers by their respective school heads and how to coach and mentor effectively is important since there are key principles, and one of those, described by Sole (2015) is to facilitate learning and development. Teachers need to be in roles of facilitators not instructors, they need to support and challenge the students to learn and to develop. The students need to acquire new awareness, insight, skills, ideas and knowledge for learning, and they need to integrate their learning into the ways they are for developing. The teachers as facilitators need to ask good questions to provoke the students' new perspectives and changes.

Another effective strategy for being good mentors is giving feedback, concluded from research findings that feedback, especially inquiry-oriented one, enhanced students' learning, extended and deepened understanding. Through their elaborate procedures, coaching and mentoring are believed to positively affect student learning outcomes, as exemplified by research results conducted by Udintoma and Srinovita (2015), aimed to investigate the effect of coaching and mentoring programs to improve student competencies, and found that the programs improved knowledge, skills, attitudes, and competency of scholarship recipients studying at five universities. In addition, Stahl, Sharplin, and Kehrwald (2016) conducted their research to develop pre-service teachers' confidence through real-time coaching in teacher education, and found the real-time coaching model improved the pre- service teachers' sense of confidence and ownership of learning by developing practical skills, effective attributes, and disposition toward continual improvement.

Moreover, coaching and mentoring are said to improve performances, as Neupane (2015) investigated the effects of coaching and mentoring on employee performance in the UK hotel industry, and concluded coaching and mentoring positively correlated to the employee performance, and both factors had significant effects on the performance.

Stepping into the 21st century, teachers need to shift their teaching methods from lecture-based knowledge delivery to active learning styles of the student-centered to enhance students for being well prepared, as Beers (2017) concluded that educators needed to prepare students for this rapidly changing global community of today's world by providing the skills of choosing, accessing, using, and applying knowledge to innovate, solve problems, and think critically about information. The strategies of coaching and mentoring are needed to be applied through the integrating with the 21st century methods of instruction, such as project-based learning, which is said to be an effective teaching method found that the method increased long-term retention of learning material and improved teachers' and students' attitudes towards learning.

In addition, the method affected the students' critical thinking through team work on the five-step processes of completing work bases on essential questions, presenting it to public audience, describing the challenges, decision making, and preparing the final product for real-world applications.

Sole (2015) placed the project-based learning on number one of his ten hallmarks of the 21st century teaching and learning methods as it was the primary gateway through which the hallmarks were realized. He identified the method was hands-on, collaborative, multi-disciplinary, student centered, real-time, real-world, and flexible.

Renard (2017) also indicated the project-based learning was a method in which students identified a real-world problem and developed its solution, gained knowledge and skills by working for a longer period of time to investigate and respond to an engaging problem or challenge. It provided opportunities for students to use technology, promoted lifelong learning, connected them and schools with the real world, encouraged them to be more engaged, learned actively, and encouraged their imagination and creativity.

Research results confirmed the above statements, as Kulprasutidilok (2015) investigated learning outcomes through the project-based learning of undergraduate students majoring in technology of health

management, and found the students gained higher achievement, gained ability to organize the project at a very good level, and satisfied with it at the highest level.

Moreover, Deejring (2016) also found her research results that the experimental group studying through the project-based learning gained higher learning achievement and creative thinking than those of the control group studying through a conventional way. Another effective learning method of learner focus is problem-based learning since it has been widely applied throughout over four decades, beginning from the healthcare discipline and spreading through the educational fields. It is believed to develop critical thinking and creative skills, improve problem-solving skills, increase motivation, and help students learn to transfer knowledge to new situations, as Gwee (2013) concluded the method enhanced educational outcomes of learner-centered, collaborative, contextual, integrated, self-directed, and reflective learning.

The instruction involved learning in small groups through social construction of knowledge using a real-life problem case to trigger the learning process. Centre for Teaching and Learning, Queen's University (2007) identified the process of learning included learners encountered a problem and attempted to solve it, identified what they needed to learn, engaged in self-directed study to research what needed and used a variety of information resources, returned to the problem and applied what they learned to their work, and assessed themselves after finishing their problem work.

Research results confirmed the effectiveness of the problem-based learning, as Beringer (2017) investigated learning outcomes of the method and concluded it improved students' overall satisfaction and performances.

In addition, Yew and Goh (2016) found that the method was generally consistent on demonstrating its superior efficacy for longer-term knowledge retention, and in the application of knowledge. Research-based learning is another effective learner centered method of teaching, as Tremp (2014) stated that the method provided students with the capacity of academic thinking, promoted their education and attainment of academic expertise. The process includes formulating a general question, overview of research-literature, defining the question, planning and clarifying methodologies, undertaking investigation and analyzing data, interpretation and consideration of results, and presentation of results.

Similarly, Rosenshine (2012) stated the research-based learning principles of instruction consisted of beginning a lesson with a short review of previous learning, presenting new materials in small steps with student practice, asking questions and checking responses of all students, providing models, guiding student practice, checking student understanding, obtaining a high success rate, providing scaffolds for difficult tasks, requiring and monitoring independent practice, and engaging student weekly and monthly reviews.

From this notion, Tammachart (2013) found six attributes of the research-based learning from her research findings; they were training students for questioning and solving problem systematically, integrating various instructional techniques, encouraging the students to have important skills for learning, practicing the students' research skills through prescribed orders, using research findings together with the procedures, and stimulating the students by evaluating continuously. She also found that the experimental group had significantly higher scores of research basic knowledge, higher problem-solving skills, and more desirable researcher characteristics than those of the control group at the .01 level. In addition, Parakho et al. (2015) investigated the effects of research-based learning on student nurses' learning outcomes, and found the subjects had significantly higher scores of the posttest than those of the pretest at the .01 level, gained good skills of discussion, and had positive attitude towards the learning activities at a higher level.

Furthermore, Srikoon (2014) synthesized research-based learning for education in Thailand, and concluded that the method influenced student knowledge discovery and working skills, good citizens, thinking skills, learning achievement, research characteristics, basic research skills, problem solving skills, critical thinking skills, inquiry skills, and good attitude.

Along with this, the principles and procedures of coaching and mentoring integrated with the 21st century instructional strategies of project-based learning, problem-based learning, and research-based learning, the teachers were expected to shift their classroom learning management to develop quality instructional delivery.

Consequently, coaching and mentoring to teachers are the most important machineries and human resources in the delivery of instruction effectively because they always stand at the peak or in front of every student's learning (Umeozor and Onuh 2016). All the teaching and learning which goes on in and outside the classroom are determined by the teacher. And only teachers can develop nations no one

else, because they build capacities of the spirit of inquiry, creativity, entrepreneurial and moral leadership among students and become their role model that's why mentoring them should always observed by the school heads. Teachers in this regard are important agents in education that implement the education policy in the classroom Sharma (2016). Due to this, the Federal Republic of Nigeria (FRN, 2013) in the National Policy on Education, renowned that no education system can rise above the quality of teachers in the education sector. This statement equally shows that the quality and efficiency of teachers always determines the type of education and learning students will receive in the classroom depending on the mentoring conducted to them.

Thus, students learn best when they are actively engaged in the learning process, when they participated, handled and motivated to learn by efficient teachers, which aids them to build on their existing knowledge and understanding. Without teacher efficiency, boosted with well-organized coaching and mentoring sessions can prevent students from receiving quality and sound instructional delivery.

Besides, efficiency as described by Adina-Petruta (2017) measures the interaction between objectives, actions, resources and goal achievement, the degree, quality and quantity of the desired output. Competence and efficiency mean doing things properly. Here, efficiency focuses on the accomplishment of task for positive results. It purely relies on profit, task and system oriented. Therefore, an efficient teacher will always strive to produce maximum results and output for the realization of educational objectives.

Agu (2014) discoursed that the effective operation of the educational system requires the coaching and mentoring services of higher ups to produce efficient teachers who can deliver quality instructions. Furthermore, the availability of efficient teachers at the lower or middle levels of education will help to enhance the quality of inputs into the higher levels which consequently impact positively on the outputs of the higher levels. In this sense, an efficient teacher as described in the present study is one that sees to in maximum work and effort in the teaching in order to achieve instructional objectives.

Agu (2014) broadly define an efficient teacher as open for criticism, willing to change for the better, take feedback as stepping stone and applied new learning into reality. This teacher is one who is of quality and has a positive effect on student learning and development through combination of content mastery, command of a broad set of pedagogical skills and communications/ interpersonal skills. Such efficient teachers are also life-long learners in their subject areas who teach with commitment and are reflective upon their teaching practice. They radiate knowledge of their subject matter and learning process through good and open communication, investigative skills, understanding of different learning styles and cultural influences, knowledge about child development and ability to sheriff a broad range of techniques to meet students' needs.

Moreover, effective teacher establishes an environment conducive to learning and leverage available resources outside as well as inside the classroom. Given the above explanations, Agu (2014) further observed that an effective teacher is usually characterized with the following teaching attributes which includes effectiveness in curriculum design and course development, effectiveness in using well-conceived course materials in teaching, effectiveness in lecture presentation skills, effectiveness in pedagogical skills and assessment devices, and effectiveness in guiding and advising students and most of all effectiveness in the delivery of instruction.

Additionally, Agu, (2014) added that an important feature of an efficient teacher is the use of multiple data sources for documenting performance. On the contrary, a teacher that is inefficient, no matter how dedicated and hard-working, will never teach as successfully unlike a dedicated and hard-working teacher who is also efficient. An effective teacher is therefore one who teaches. If a teacher is truly efficient, he or she has a better chance of being effective. If the students learn, the teacher has been effective. So, efficiency is important for effective instructional delivery. It does not mean a teacher doing little work; it means making the work more meaningful in order to accomplish task and achieve instructional objectives. Efficiency is therefore crucial for teachers. It means getting the maximum effectiveness for the effort the teacher puts in every instructional delivery.

In continuance, quality assurance of instructional delivery which goes on in the classroom cannot be fostered without the contributions of efficient teachers whose commitment, dedication, increased performances and productiveness are the life-wires of achieving quality education and instructional objectives. Quality assurance as defined by UNESCO cited by Matei (2016) is an all-embracing term referring to an ongoing, continuous process of evaluating, assessing, monitoring, guaranteeing, maintaining and improving the quality of a secondary education system, institutions, or programs.

Quality assurance focuses on both accountability and improvement, providing information and judgments (not ranking) through an agreed upon and consistent process and well-established criteria. Quality assurance activities depend on the existence of the necessary institutional mechanisms preferably sustained by a solid quality culture. Planned and systematic review process of an institution or program to determine whether acceptable standards of education, scholarship, and infrastructure are being maintained and enhanced. Usually includes expectations that mechanisms of quality control just as teacher efficiency are in place and effective. It is a process of demonstrating excellence, accountability and value for clients by an educational program. It is not about specifying the standards or specifications against which to measure or control quality. Quality assurance is about ensuring that there are mechanisms, procedures and processes, in place to ensure that the desired quality, however defined and measured, is delivered. It implies a determination to develop a culture of quality in an institution of higher education, so that everyone is aware of his own part in sustaining and improving the quality of the institution (Adina-Petruța, 2017).

Considering the importance of quality assurance, it enables a secondary school become a learning organization. A collective process by which a secondary school ensures that the quality of educational process is maintained to the standards it has set itself. Ongoing development and implementation of ethos, policies and processes that aim to maintain and enhance quality as defined by articulated values and stakeholder needs (Matei and Iwinska, 2016).

Quality assurance aims to safeguard the quality of an education system within an internal and external framework of accountability on a national, European and international level. Quality assurance framework provides guidance to educational institutions in order to enhance the learning outcomes provided through their educational program (National Commission for Further and Higher Education, 2013). In essence, fostering teacher efficiency which is usually determined by certain factors is one means of guaranteeing quality assurance in instructional delivery in secondary schools in Anambra State. Researchers and scholars have identified through their studies that certain factors determine teacher efficiency in the school system.

Ikpesu (2014) opined that the availability of adequate and qualified academic staff in relation to the teacher qualifications, teaching experience, coupled with the availability of instructional materials and teaching resources, well-equipped library and laboratories which provide supplement to the teaching processes, among other things has a direct relationship with the quality of teaching or teachers instructional delivery in the school.

Agommuoh (2014), Ezugoh (2017), Gikunda (2016), Hasbay and Altındag (2018), Nyanya (2015), Ouma (2017) and others observed in their studies some factors which can influence teachers work efficiency in the school as including the working environment which is made up of the leadership practices, physical structures, resources and facilities, teacher wage factor, opportunities for teachers' professional development and in-service training, motivation, personal characteristics of teachers as regards to their job experience, academic qualifications, age and gender.

In citing instances, Ezugoh (2017) confirmed that such motivation factors as use of teacher's rewards, remunerations, in-service training, participation in decision making were factors that motivated teacher's for increased efficiency at their work place. In the research of Gideons (2014), he observed class sizes to be high in most schools. Classes with students ranging up to 200 are likely to compromise teachers' efficiency in instructional delivery.

Hasbay and Altındag (2018) also noted that the teachers working environment and wage factors constitutes a huge block to their efficiency and productivity. The working environment can lead to a drop-in staff motivation if it does not have proper working conditions.

Moreover, it is hardly expected that an employee who does not have the quality of working environment is effective and efficient in his work. Managers have to increase the morale and motivation of their employees by increasing job satisfaction of their staff and by regulating their working environment. A high quality of working environment provides better opportunities and various changes to improve the quality of life and efficiency of an employee (FRN, 2013).

Nyanya (2015) noted that some of the school-based factors that affect internal efficiency of teachers in the provision of effective instructional delivery were found to be teachers' academic level of training, teachers' professional level of training, availability or unavailability of teaching and learning materials, and the status of the school physical facilities.

Gikunda (2017) saw teaching and learning materials as those things, which are accessed in the school environment, collected, or bought. In secondary schools, such resources include teacher resources

such as chalk, boards, dusters, notebooks, textbooks, reference books, laboratory chemicals and apparatus, ICT services, blackboard rulers and construction materials for mathematics, maps for geography, calculators, registers, storage facility, balls, and other games paraphernalia, among others. Despite of the various known benefits of secondary education, many of the developing countries still find it a challenge to provide the necessary material resources for teaching and learning mainly due to the limited national resources and the competing options.

From all these aforementioned factors which could affect teachers' efficiency for quality assurance in instructional delivery, the present study focused attention on finding out the extent to which certain factors like the working/learning environment, low teachers' motivation, teachers' personal characteristics and inconsistency to professional development and training inhibited teachers' efficiency for quality assurance. The working environment is made of different characteristics of the leadership processes and practices, adequacy of facilities and resources, instructional materials, workload of teachers, school policies, among others, which greatly impact on teachers' efficiency.

Motivation as described in Ezugoh (2017) means needs, desires, wants or drives within the individuals. It is the process of stimulating people to actions, so as to accomplish goals. Studies on motivation have discovered that it is one important factor that promotes workers efficiency, commitment and productivity. One of the theorists of motivation Frederick Herzberg identified that by providing such motivation as good remunerations, job enrichment, job enlargement, allowing cordial relationships with coworkers, conducive organizational climates, effective leadership and management policies, recognition at workplace, workers responsibilities and freedom to exercise autonomy, active participation in decision making processes, among others, workers will fill satisfied to put in their best in order to promote quality work in the organization (Ikpesu, 2014). He also opined that workers in any organization need something to keep them working. Most of the time, their salary is not enough to keep them working for an organization and therefore other mechanisms or techniques could be provided for workers to aid their productivity and when such mechanisms or techniques have been provided, they are referred to as motivation. Teachers' personal characteristics have to do with their personalities, qualities, attributes and possession of certain traits.

In furtherance, according to Peñascosa (2015), teachers' personal characteristics include their personal attributes which describe someone as outgoing, extrovert, open. They are important because they are what make teachers who they are, what other people find in them that they may like or dislike. It basically means traits that make up your personality, which define who you are as a person. It is particularly the combination of emotional, attitudinal, and behavioral response patterns of an individual personality. It is one's identity. An efficient teacher is therefore expected to have attained high level of experiences on the job, possess good qualifications, energetic in age and dynamic, applies different methodologies in teaching and such a teacher is divergent in knowledge of the subject matter, skillful and competent in his work, among others.

Professional development of teachers are all in-service training programs which comes in form of their orientation and induction training, workshops, conferences, vestibule training, mentoring, coaching, observation, guided practice, university education studies, short term and long-term course programs, among others. They incorporate both teachers' on-the-job and off-the job training programs provided for teachers to boost their efficiency (Ezugoh, 2017).

Given these factors for teachers' efficiency, it has equally been observed that in most places and Anambra State inclusive, many of these factors are found wanting which affect teachers' efficiency for quality assurance in their instructional delivery. Notably, it is evident in Anambra State many teachers work under poor conditions, many schools are poorly resourced, teachers lack motivation and no means of continuous staff training. All these might have consequences on teachers' efficiency which invariably affect the quality of instructional delivery. Seeing all these ugly situations in Anambra State, the researchers are however, motivated to carry out an investigation towards determining the extent to which most of the factors inhibited teachers' efficiency for quality assurance in instructional delivery in public secondary schools in Anambra State.

Thus, the findings of the study of Umeozor and Onuh (2016) revealed that the extent to which coaching and mentoring was given to the teachers in their work environment, motivation, personal characteristics and inconsistency to attend to professional development and training opportunities inhibited teachers' efficiency for quality assurance in instructional delivery in public secondary schools in Anambra State were all to a high extent.

From the findings of this study, recommendations were proffered and among them include that the principals in collaboration with the Organization for Economic Cooperation and Development and PISA Result (2018) should make the work environment conducive for teachers' in order to highly improve their efficiency for quality assurance in instructional delivery by providing adequate varieties of teaching resources and instructional materials, development of school infrastructures, allowing effective leadership collaborations and supporting teachers' work, avoiding excessive teaching workloads for the teachers; maintaining appropriate small class-sizes and likewise promoting cordial relationships between teachers and parents and collaborations or team work among teachers including with other colleagues.

Padkasem et al. (2013) supported the findings this study. He stated that the instructional strategies of a teacher should usually base on design-based learning, problem solving, creative problem solving, creative thinking, research-based learning, problem-based learning, project-based learning, science, or innovative teaching process could lead to learning outcomes that support creation of creative and innovative education. These are similar to the strategies to develop students' characteristics according to learning outcomes which were mostly concern student-centered learning using active learning. The active learning strategies were: case study, problem-based learning, and project-based learning. Two teaching strategies mostly used were role model and service learning. These strategies were highly recommended for classroom teaching.

Teachers' Research and Innovation Engagement

Research and innovation are two interrelated 21st century skills that is timely and relevant that the school system including the higher authorities, district supervisors, school heads, teachers and even learners needs to be engaged.

Hence, in the school setting, teachers are encouraged by their school heads to engage in research and innovation through coaching and mentoring process in order to adapt the new transitions in the delivery of instruction which can aid to the existing problem and could cater the global trends brought about by technology.

In this regard, Basu (2020) stated that research in the field of education is the more formal, systematic and intensive process of carrying on a scientific method of analysis. Its primary aim is the systematic investigation of educational problems and tries to provide possible solutions to those problems. It enables significant progress to be made in curriculum development and reform, educating learners with difficulties, understanding the individual differences and preferences and in adapting methods of instruction to the needs of individual learners.

In consonance, Kapur (2018) enumerated the different purpose of research such as a) research provides answer to questions of what, when, how and why of man, social life and institutions. This helps to discover various facts and their inter relationship and to help us to discard distortions and contribute to our understanding of reality; b) research is to diagnose different problems prevalent in our society and education system and to make critical and logical analysis of those problems; c) research provides first-hand information about the nature of social and educational institutions. This knowledge helps us to control over the social phenomena. It has also a potential to investigate and assess latest needs and level of advancement; and d) research is to suggest possible remedial measures and effective solutions to various problems and challenges. With this, researchers come up with innovative and creative strategies and ideas to improve the education system and its associated components. Researchers can identify the causes of existing evils and problems and thus it can help in taking appropriate remedial actions.

Furthermore, Rathnakar (2018) listed out the importance of research in education. These are: a) research in education helps to understand any subject and its principals in much better and easier way which will encounter new questions and search for answers of those questions will lead us to learn new theories of any subject; b) research helps in identifying the research gaps, learning gaps at various levels of education system and tries to bridge the gap between what is existing and what is expected.

Basu (2020) mentioned that research concerning social aspects of education ensures the development of children and teaching method; c) research professionals are always learning, finding out things, analyzing information, adapting their behaviour according to information received, looking to improve and adapting to modern demands and thus social science research helps in well-being of society, social and educational institutions as stated by Rathnakar (2018); d) research findings could be beneficial for teachers, teacher educators, administrators, policy makers, parents and other stakeholders involved in the education sector. Research findings could be implemented in classroom teaching learning process to bridge the learning gaps. These findings could be used in teacher training programs, curriculum

development programs and also in formulating education policies as mentioned by Pramodini & Sophia, (2015). e) research methodologies give teachers the tools to analyze and make informed decisions about their practice. It can help in professional development of teachers and teacher educators and also orient and prepare them to acquire 21st century skills in order to implement new educational strategies, evaluation techniques in education system.

So, teachers should be enabled to use and integrate relevant findings and scientific theories of educational research in their professional actions and decisions (Diery, 2018); and f) researches in education help in analyzing perceptions, attitudes of students' teachers, teacher educators, parents and other stakeholders on different issues related to education sector, local and global environment. Thus, research findings indicate and suggest possible remedies to those issues keeping in mind the views of stakeholders involved.

Additionally, Zagerman (2023) also emphasized the reasons why research is important in education. According to him, research is import in such a way that research develops students into becoming more self-sufficient because there are many benefits for college students to engage in scholarly research. In other words, students enhance their ability to ferret out information regarding a specific topic with a more functional deep dive into the subject matter under investigation and the educational journey of conducting research allows students to see the current conversations taking place regarding a specific topic. One can parse out the congruity and incongruity among scholars about a particular topic.

Furthermore, in becoming immersed in the literature, students can recognize associated gaps, problems, *or* opportunities for additional research. Research provides a path to progress and prosperity. This means that research integrates the known with the unknown. It becomes the path to progress and prosperity because present knowledge, gathered through previous research, and serves as the foundation to attaining new knowledge due to the fact that only through research is the attainment of new knowledge possible. New knowledge, formed through new research, is contributed back to the knowledge community.

In the absence of research, the continuum of knowledge is severed. Another is, research serves many great purposes, such as keeping up to date with critical findings, hearing the critiques of current methods of teaching and running schools and standing on the shoulders of giants to see our world better.

Given that so much educational research is now available, reading syntheses, interpretation and implementation, and seeing the research conducted is greatly affect the education system. Thus, research findings improved ways of thinking, interpretations, and its impact on learners. There is also much to be gained from reading about the methods of research, which provide ways in questioning impacts, theories of teaching and learning, and helps in critiquing one's practice by helping and guiding others. Research also helps to know what is exciting, topical, and important.

Research also, enables us to hear other perspectives and provides explanations and bigger picture interpretations where research and evaluation on your class and school can be triangulated with research studies in the literature to provide alternative explanations, to help see the importance of the context of your school. And we can always write our experiences and add to the research (Michelle, 2023).

Additionally, Sweigart et al. (2020) stated that research gives us better knowledge workers where they learn to observe carefully and organize collected data efficiently, know how to test results for whether or not they should be believed or were just a chance finding and learn to estimate the strength of the data they collect and see in other scientists' published work. With its peer review, the publication process demands that the work be done properly, or it will be exposed as flawed or even falsified. So, learners don't just learn how to do experiments, interviews, or surveys. They learn that the process demands rigor and ethical conduct to obtain valid and reliable results.

Hence, supporting and educating a new generation of science-minded citizens makes our population more likely to support proven facts and take unproven allegations with a grain of salt until they are rigorously evaluated and reviewed. Thus, educating our students about research and involving them with hands-on opportunities to participate in research projects gives us better knowledge workers to advance technology and produce better citizens.

Likewise, Shaw (2023) stated that research helps educators to have greater confidence to help students achieve outcomes in which they need ways to filter through the noise to find practices that are most likely to actually produce *positive* results with students when a practice has been identified as evidence-based, that means an array of valid, carefully controlled research studies have been conducted that show significant, positive outcomes from engaging in it.

With that, by choosing to engage in these practices, educators can have greater confidence in their ability to help students achieve meaningful outcomes where organizations focused on evaluating the research base for programs and practices and determine whether they are evidence-based. Educators can also use resources to sift through the research, which can sometimes be challenging to access and translate, especially for busy teachers. It also supports vulnerable students such as students with disabilities, who are at far greater risk than their peers of poor short and long-term outcomes where schools are concerned about their success. In many cases, these students are already behind their peers one or more years academically and possibly facing other challenges.

Research also creates new knowledge and better ideas which means that at the foundation of learning is sharing knowledge, ideas, and concepts. However, few concepts are set in stone; instead, they are ever-evolving ideas that hopefully get closer to the truth. It also provides answers to complicated problems. Here, research can be used to show how many studies can be pulled together to find answers to these challenging problems. But students should also understand that these answers aren't perfect and should be challenged. This process creates a deeper learning experience and students who are *better* equipped for the world we live in.

Thus, basic understanding of research aids students in making informed decisions this means that if students have a basic understanding of research, they can make informed decisions based on reading the source and their own insight. This doesn't mean they have to mean they disregard all headlines instead they can decide to what extent the findings are trustworthy and dig deeper to find meaning (Crabtree, 2023).

In furtherance, Gopalan (2023) detailed that research enables people to discover different ideas, theories, and facts. Finding these things out for oneself causes a student to think more deeply and come up with their personal perspectives, hypotheses, and even to question widely held facts. This is crucial for independent thought and personal development. Also, genuine research opens young people's eyes to facts and opinions that may otherwise be hidden. This can be demonstrated when looking at social media and its algorithms.

Essentially, if these are repeatedly read or *like* pieces with a specific worldview, the algorithm will send more articles or videos that further back up that view. In turn, this creates an *echo chamber* whereby own opinion is repeatedly played back to you with no opposing ideas or facts, reinforcing your view in a *one-sided* way. Furthermore, learning how to conduct *genuine* research allowing students to search through archives and find material that is not widely known about and doesn't appear at the top of search engines.

Aside from research, innovation also play a vital role in the educational system. It is the product of research in which new models of teaching that could aid the learning process more effective, easy to use, practical and could enhance creativity among educators and learners with the use of technology.

According to Gertner & Manzi (2013), innovation is the application of an idea or invention, adapted or refined for specific uses or in its particular contexts. The implementation of an innovation proceeds over time, often with adjustments in course as the innovation is fitted to the context. An innovation replaces the standard product, program, practice, or process with something better, and as the majority adopts it, the innovation then becomes the new standard.

Redding et al. (2013) on other hand, define innovation as a deviation from the standard practice that achieves greater learning outcomes for students than the standard practice given equal (or lesser) amounts of time and resources. Innovations in learning solve problems and add value. They: a) provide fresh solutions or remove traditional barriers to existing, articulated challenges in teaching and learning (and add value by building capacity for implementation); b) identify a previously undetected need or barrier, then enhance the teaching and learning process with a novel solution and add value by understanding the limiting factor in a new way and responding accordingly; c) introduce new possibilities to enhance the teaching and learning process and d) allow the education system to adjust to new avenues through which students learn.

In sum, Murphy (2013) said that innovation is equal to improvement, but not improvement by simply getting more proficient with the standard practice. Our premise is that the new practice produces observable, measurable, sustainable improvements through replacement of a standard practice rather than more proficient implementation of it. Innovation solves a problem, sometimes by replacing a standard practice and at other times by articulating a previously unfelt problem or need and proposing a solution. If a new practice is implemented and it does not result in observable, measurable, sustainable improvements, it is not an innovation. By identifying specific practices from which innovations emerge

and the conditions under which the innovations are most successful, we will be able to talk specifically and precisely about what innovations in learning are, whom they help most, what they require, and how they work.

Innovation should be a new thing or partial new one that is created by a systematic approach and then improved by doing research, and it is not appeared in a daily working system (Songkhram, 2013). The common procedures in creating educational innovation are as follows: 1) study problems or need, 2) specify the problem, 3) specify the goals, 4) study the limitation, 5) create the educational innovation, 6) develop the educational innovation, 7) diffuse the educational innovation, and 8) study the effects of diffusion's educational innovation (Seechaliao, 2017). In a world of rapid change in information and communication technology, innovation in education needs to keep updated and get prepared for this changing world in order to solve educational problems effectively (Whattananarong, 2013).

1. Generally, educational innovation is divided to six types: 1) media and educational technology, 2) instructional technique/pedagogy, 3) curriculum,
2. 4) educational system, 5) measure and evaluation, and 6) administration and management (Sittisomboon, 2014; Sutthirat, 2016). First two of six types are most frequently introduced in Media and Educational Technology or related courses in Thailand.

Songkhram (2013) said that innovation is products, techniques, new procedures, new knowledge that have been never happened or, existed products, techniques, procedures but revised or developed and good results. Therefore, creating an innovative product need to be followed the learning activities that help students create innovation by themselves. These activities are the important procedures including diverse procedures and technique. These activities were explained very detail. Teachers can apply these activities in their classroom efficiency, and proposed that a tool to evaluate innovation should include three parts: 1) standard procedures of innovation development, 2) degree of valuable innovation, and 3) innovative characteristics. A composite score from these three types of rubrics indicates an innovation level. If the score of innovation is at a low level, it should be revised to make more innovative.

In addition, there were previous researches concerning instructional strategies in higher education. For example, Padkasem et al. (2013) studied the strategies in developing students' characteristics according to learning outcomes of general education at Burapha University. The results showed that mostly concern student centered learning using active learning. The active learning strategies were: case study, problem-based learning, and project-based learning. Two teaching strategies mostly used were role model and service learning. These strategies were highly recommended to be used in classroom teaching.

Songkhram (2013) said creating innovation could change learners to innovators and descripted the instructional strategy for developing an educational innovation. This instructional strategy was followed: 1) prepare for creating innovation, 2) specify the interested topic, 3) share knowledge, experience, and opinion, 4) plan for creating an innovation, 5) create an innovation, 6) implement an innovation, 7) present an innovation, and 8) evaluation.

Kanchanachaya (2013) studied the development of a blended learning model based on creative problem-solving principles using lateral thinking to enhance creative problem-solving abilities for instructional media production of pre-service teachers. This model had five input factors: 1) content, 2) learners, 3) instructors/assistant instructors, 4) technologies used in teaching and learning, and 5) assessment and evaluation. This learning process of the model included four steps: 1) preparation, 2) study content based on course objectives, 3) blended learning approach following the creative problem-solving principles using lateral thinking, and 4) evaluation. The output of this model was creative problem-solving abilities.

In persistence to innovation, (Serdyukov, 2017) defines this word as a process of introducing a new method in which new ideas or things for a specific person or group result in a change. Another opinion about innovation is challenging, enjoyable, and creative and leads to change or development (Smith, 2012). New ideas or ideas are expected to be helpful for the creator and also for others. In education, learning innovation can be interpreted as a learning renewal that is packaged on encouraging new ideas by taking learning steps to obtain progress in learning outcomes.

Salmon (2014) then defines learning innovation as a strategic framework to encourage and improve learning experiences and learning outcomes. Learning innovation is closely related to the use of advanced technology and the pedagogy of inherent innovation, the intrinsic potential for developing and achieving ideas, and quality improvement. He further added that learning innovation also involves the role of lecturers who can design good learning. The definition related to learning innovation is not only

associated with that, but another definition is also a lecturer's creativity that can do before teaching and during the learning process. The expected lecturers' abilities are to reflect, design, and apply new and diverse learning methods to stimulate motivation and interest in learning and improve learning outcomes and student satisfaction (Salmon, 2014)**.**

In furtherance, according to Salmon (2014), there are two indicators of innovative learning innovation: innovation related to teaching methods and innovation related to learning design. 1) Innovation of learning methods refers to the ability of teachers to use new tools or techniques that can help the learning process and 2) Innovation of learning design refers to the ability of teachers to design their learning and flexible innovation capabilities.

Warren (2013), also emphasized the use of technology in schools to optimize the use of software or multimedia available on the internet. If teachers understand the use of multimedia, teachers can develop it as a new teaching tool and method. The role of teacher in online plays a critical role because the teacher acts as a designer who prepares and makes lesson plans and also acts as a facilitator and instructor who provides direction and instruction in the class being cared (Meyer, 2014). The teacher, as a facilitator, plays a role in explaining the learning material where there may be similarities or differences in perceptions between students. The teacher is also able to encourage students to work together. Furthermore, the role of the teacher as an instructor is to be involved in a discussion and evaluate the correct understanding, providing opportunities for students to increase knowledge and providing new and relevant sources of information for shared experience (Meyer, 2014). This research adopted eleven indicators from Meyer's study (2014) to measure the lecturer's ability as a designer of learning innovation, facilitator, and motivator.

The study of Setyawati, Wijaya & Widjaja (2022) revealed that that learning methods or strategies prepared by the principal in creating learning innovation positively impact teacher engagement and student satisfaction through the effectiveness of coaching and mentoring they have done to their respective teachers. The ideal teaching method or strategy during are both synchronous and asynchronous which supports the interaction between them. Such interaction would increase teacher engagement, such as motivation, being confident in their abilities and deep understanding, and sharing learning experiences, ideas, and knowledge to their learners.

According to Purwanto (2020), online lectures suddenly require lecturers to be more creative in teaching that's why mentoring is very important, while on the student side, the impact of the pandemic is more psychological. Such as reduced direct face-to-face interactions and decreased understanding of teaching materials affect the decrease in student interest in learning.

Also, studies conducted by Murphy (2013) reveal that reduced interaction between school heads and teachers or students with other students can reduce teacher engagement on innovation. A survey from Digital Promise on students in the United States measured college satisfaction before and during the pandemic. The result showed that 87% of the total respondents were satisfied before the pandemic, and only 12% were dissatisfied. Still, student satisfaction decreased to 59% of the total respondents during the pandemic. Total respondents, while the level of dissatisfaction increased to 40% (Means & Neisler, 2021).

Quality Indicators for Learning and Teaching (QILT) on students showed the highest decline since 2012, which was 10%, compared to 2019 due to a decrease in research engagement. In contrast, in 2019, it was by 59.9% to 43.2% in 2020 (Zhou, 2021).

Student satisfaction is inseparable from the quality of teachers, the availability and quality of technology as a resource used, and the effectiveness of using the technology (Ricky and Angella 2022). Online learning requires lecturers to create a conducive learning environment through positive student interactions. Lecturer innovation is needed to ensure that learning is effective, fun, and comfortable for both parties. Online lectures are more challenging because lecturers must be able to retain students' engagement during learning.

In addition, the results of Salmon's research (2013) also show that learning innovation has a positive impact on student learning satisfaction, and learning satisfaction has a positive impact on learning effectiveness and mediates between learning innovation and learning effectiveness.

Gray and DiLoreto (2016) also found a significant effect of the learning structure designed by the school heads on teacher engagement in research. Previous studies have confirmed the effect of learning innovation on student engagement. An example is an Australian study that indicated that lecturers' active learning initiatives significantly impacted student engagement. Active learning prepared by lecturers can improve the collaborative learning experience, critical thinking skills, communication,

and student retention. In addition, students can provide input in the learning undertaken, where all these are indications of student engagement (Arjomandi, Seufert, O'Brien & Anwar, 2018).

For students' perceived learning innovations, previous research has shown the role of student engagement in mediating the effect of lecturer learning innovations on student satisfaction. For example, Gray and DiLoreto's (2016) research showed that student engagement significantly mediated the influence of learning structure, lecturer attendance, and lecturer-student interaction on student satisfaction.

The above phenomenon encourages researchers to conduct empirical studies to examine the effect of student perceptions of teacher learning innovations on research engagement during the pandemic.

Align with different researches related to innovation, innovation in education is a highly contentious issue. Talking to education ministers one quickly gets the impression that education systems in general are very reluctant to innovate, and that there is strong resistance to change among teachers. Education is sometimes perceived as one of the most conservative social systems and public policy fields. But talking to teachers gives one the opposite idea – that there are too many changes imposed on them without much consultation or the necessary preconditions for successfully implementing change. In some countries, innovative change has been implemented without the care and diligence needed or the appropriate prior testing, experimentation and evaluation. This controversy should not deter us from looking to the facts. And the facts clearly demonstrate that education systems are running up against very serious problems which, if left untouched, could result in serious risks not only for education itself but also for future economic growth, social progress and well-being.

The role of managers began to change which was originally supervision and supervision has now become a direction towards coaching and focusing on coaching employees in improving performance (Huang & Hsieh, 2015). Additionally, there is a leveling of the results of research in the article on coaching states that good coaching on target should be useful in a department with a procedural climate state the low (Özduran & Tanova, 2017).

Thus, coaching can also be said to be an important tool, there is no absorbed view on how to run coaching effectively in the organization (Rosha, 2014). The statement of the relationship between employee performance and coaching is expressed from the results of the article research that there is a considerable difference in what is different from the results of the article about how coaching can be done, all authors agree that coaching should provide credible feedback to employees that helps them learn how to improve their performance. However, coaching sessions are largely based if not solely on supervisory observations (Ford et al., 2013).

In the above relation to the set of researchers that coaching can improve employees with feedback to credible employees. Furthermore, employees in carrying out work require assistance from the organization, this assistance can provide enthusiasm, motivation, work results, and expectations for employees Producing performance according to organizational expectations, in a research result from an article on mentoring it is stated that the use of mentoring is not only associated with work, mentoring can provide opportunities to employees to increase cultural awareness, aesthetic appreciation, and the potential to live a meaningful life (Jyoti & Rani, 2019).

In addition to the revelation that mentoring helps raise employee morale and
motivate them to achieve organizational goals, through mentoring, organizations look at their employees more personally and gain knowledge about their personal and work needs (Jyoti & Sharma, 2017), existing references regarding mentorship also state to go
beyond comparing individuals with and without mentors and examining differences in
mentorship and mentoring relationships (Allen et al. in Fogarty et al., 2017).

In addition there is a statement regarding mentoring stating that there are several studies expressed for mentoring is one of the key tools for developing human resources a (Baran & Zarzycki, 2021), from Some of the findings above, the author takes a small set, namely mentoring for existing employees and can provide enthusiasm, motivation, results work even down to organizational performance. Human beings are related to leaders, leaders who can direct employees and run the organization according to the expectations of the owner with cool targets, Leadership style found in the results of the study related to work performance, known as transformational and transactional leadership (Naeem & Nawaz, 2017).

Transformational leadership is a system that changes and changes people, besides that, in previous research there were results states there is a significant influence between transformational

leadership on employee performance (Llorens et al., 2018). It can be seen from several previous articles that transformational leadership has an influence on performance. Leadership has existed in its style, so employee attachment is very important in an organization from several existing articles with statements and research results including no It found a direct effect with the presence of leadership engagement on employee work engagement, but the opposite effect was significant the employee's perception of attractive leadership was shaped by their own engagement experience (Nikolova et al., 2019).

In addition, there are research results that say, the presentation of an engagement management model that combines the main ideas of the paper and suggests new perspectives for thinking about how to encourage and manage employee engagement to achieve a high level of job performance (Gruman & Saks in Verbos, et al., 2014) in the involvement of employees in the following statement the existence of assumptions that innovative behavior comes not only from the nature of the individual but also from the work attitude of the individual, scholars begin to pay greater attention to the attitudinal factors that help drive innovative behavior, One such factor is employee engagement, which is operationalized by the intensity and direction of cognitive, emotional, and behavioral energy (Shuck et al., 2013). From some of the results of some of the articles above regarding employee engagement, the results exist and those that have an influence on performance already exist as well, then the nature of this article is an existing problem describing the results of the articles relating to the variables and presented.

3. Employee engagement has been widely discussed in the study of human resource management in an effort to reduce turnover rates in a company. The results of the study of Susanto, & Sawitri, (2023) revealed that in coaching there is a positive correlation with satisfaction (Anghel & Voicu, 2013), Coaching in organizations and results (Rosha, 2014), Important coaching in all departments (Özduran & Tanova, 2017).

Furthermore, from the presentation of metrics regarding mentoring variables with the discussion of Mentoring with other variables (Jyoti & Rani, 2019), Mentoring with other related variables (Jyoti & Sharma, 2017), Mentoring with students (Allen et al., 2014), and Mentoring with related variables (Goodwin et al., 2022). Furthermore, the discussion of the metric above will be transformational leadership variables with discussion, transformational leadership with other variables (Qalati et al., 2022), transformational leadership with various articles and variations between variables. The next discussion of the variables Employee engagement with the results of employee and work involvement in this article is discussed and the work in this article is discussed (Nikolova et al., 2019), furthermore the results of the review literature (Shuck et al., 2013), and Employee engagement with several variables (Buil et al., 2019).

Summary

Coaching and mentoring are two interrelated practices that the school heads should master in order to provide effective and quality technical assistance among teachers. They are the key strategies that support teachers at any stage of their careers, and for improving teacher practice. These are relationship-based, adult learning strategies intended to promote and support an educator’s awareness, refinement, professional learning process and classroom effectiveness of the teacher.

In addition, coaching and mentoring of school heads are very important to teachers in their classroom management due to the fact that it is vital to the whole education process as it offers, guidance and technical assistance, helps prevent teacher burnout and makes students and teachers feel safer and happier in an ideal learning environment. It also involves more than just discipline and rules and entails organization routines with which teachers became comfortable. Thus, due to good classroom management and guidance of the school heads to teachers, students are more easily engaged and less distracted in an organized, well-managed classroom, so the learning environment is greatly enhanced.

Align with this, coaching and mentoring is also an essential element in the instructional delivery because effective instructional delivery rooted from regular conduct of coaching and mentoring sessions to teachers by their respective school heads and how to coach and mentor effectively is important since there are key principles that one facilitate learning effectively and efficiently. Here, teachers need to be in roles of facilitators not instructors, they need to support and challenge the students to learn and to develop. The students need to acquire new awareness, insight, skills, ideas and knowledge for learning, and they need to integrate their learning into real life scenarios.

Furthermore, coaching and mentoring are necessary to teachers’ engagement in research and innovation because here, they were encouraged by their school heads to engage in research and innovation in order to adapt to the new transitions and for them to go out in their comfort zones where

the will learn new approaches and strategies of effective teaching learning that can aid to the existing problem and could cater the global trends brought about by technology.

Somehow, research cannot be substantial without innovation because aside from research, innovation also play a vital role in the educational system. It is the product of research in which new models of teaching that could aid the learning process more effective, easy to use, practical and could enhance creativity among educators and learners with the use of technology. Hence coaching and mentoring should be conducted in order for the teachers to be adept, engage and apply the 21st century skills.

3. Research Method

Respondents. The respondents of the study were the three hundred thirty-eight (338) teachers in the 3rd Congressional District, Schools Division of Iloilo, for the school year 2022-2023. Multi-stage sampling technique was used in selecting the participants where randomization is the last stage.

The teachers were classified according to age, sex, civil status, length of service and educational attainment. As to age, 201 or 59% of the respondents were young and 137 or 41% were old. For the sex, 44 or 13% were male and 294 or 87% were female. For civil status, 74 or 22% were single, 250 or 74% were married and 14 or 4% were widow. As to length of service, 190 or 56% were short term in service and 148 or 44% were long term. For the educational attainment, 218 or 64% were baccalaureate degree holder, 101 or 30% were master's degree holder, and 19 or 6% were doctoral degree holder.

The distribution of respondents is shown in Table 1.

Table 1
Distribution of the Respondents

Category	f	%
Entire Group	338	100%
Age		
Young	201	59
Old	137	41
Sex		
Male	44	13
Female	294	87
Civil Status		
Single	74	22
Married	250	74
Widow	14	4
Length of Service		
Short	190	56
Long	148	44
Educational attainment		
Baccalaureate Degree	218	64
Master's Degree	101	30
Doctoral Degree	19	6

The instrument. The researcher made data-gathering instrument was utilized in determining the level of competence of school heads in coaching and mentoring on teachers' classroom management, instructional delivery and research and innovation engagement. This was validated and pilot-tested.

Survey instrument. The validated researcher-made instrument was used to gather quantitative data in this study.

The questionnaire was composed of three (3) parts. Part 1 is the personal profile of the respondents which consisted of their age, sex, civil status, length of service and educational attainment.

Part 2, is the questionnaire proper. It consists of three (3) areas. Which are on the level of competence of school heads in coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement. Area 1 and 2 are composed of 20 items while area 1 has 10 items which are answerable by, 5 for "Always"; 4 for "often"; 3 for "sometimes"; 2 for "Seldom" and 1 for "Never".

The questionnaire was submitted to the adviser for review and correction. After the revision, it was finalized and subjected to the validity and reliability test. For content validation, it was submitted to the panel of experts such as District supervisors, and school heads. When the instrument became valid, it was administered for reliability testing. The instrument was pilot tested in the District of Sta. Barbara. The Crombach Alpha was used to determine the reliability of the data gathering instrument.

The reliability coefficient of the data was 0.88 which was considered highly reliable. According to Creswell (2018) for the questionnaire, the reliability should be 0.71 or higher.

Data gathering procedure. To provide consistency, reduce biases, and improve validity and reliability of the data gathered in the study, data collection procedure was employed. The survey procedure was utilized the validated survey. The subsequent discussions enlighten this part. Before the survey was conducted, consent from West Visayas State University-Lambunao Campus Graduate School Director was obtained. Permission was likewise secured from the Iloilo Schools Division Superintendent and Supervisors to allow teachers to get involved in the study.

Upon approval, the teachers included as respondents was randomly selected. The district supervisors and school heads were requested of their utmost cooperation and assistance in the administration of the survey. They were briefed about the purpose of the study. On the other hand, all teachers included in the study were personally approached by the researcher.

After identifying the respondents, the researcher sent via online or personally administered the distribution of questionnaires to the respondents and retrieval followed immediately.

The gathered data were scored, tallied, classified statistically, and interpreted.

Statistical data analysis. The quantitative was analyzed using appropriate analysis procedure. These procedures were discussed in specific detail on the basis of posed questions in Chapter One.

The following statistical tools were employed in the analysis of the data obtained:

Frequency count was used to determine the number of participants belonging to a class or category of the dependent variables.

Percentage analysis was used to determine which position of the participant belongs to a class or category.

Mean was used to determine the level of school heads competence on teachers' classroom management, instructional delivery and research and innovation engagement.

To determine the level of competence of school heads in coaching and mentoring on teachers' classroom management, instructional delivery and research and innovation engagement the researcher utilized this scale and its' description.

Scale	Description
4.50-5.0	Expert
3.50-4.49	Advanced
2.50-3.49	Intermediate
1.50-2.49	Novice
1.00-1.49	Poor

Standard Deviation was used to determine the homogeneity of school heads level of competence in coaching and mentoring on teachers' classroom management, instructional delivery and research and innovation engagement.

MANOVA was utilized to determine the significant differences on the level of competence of school heads coaching and mentoring on teachers' classroom management, instructional delivery and research and innovation engagement.

The .05 alpha degree was used as the criterion for the acceptance or rejection of the null hypotheses.

4. Results and Discussion

Descriptive Data Analysis

The findings revealed the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery and research and innovation engagement in the 3rd Congressional District, Province of Iloilo as perceived by the teachers as an entire group and when classified as to age, sex, civil status, length of service and educational attainment. The computed mean and standard deviation were used as the basis for interpretation.

Competency level of school heads' coaching and mentoring on teachers' classroom management as perceived by the entire group of teachers and when classified as to age, sex, civil status, length of service, and educational attainment. The findings revealed that the competency level of school heads' coaching and mentoring on teachers' classroom management as perceived by the Entire Group of teachers was expert (*Mean = 4.77, SD = 0.38*).

When the teachers were classified as to age, both the young (*M =4.78, SD =0.36*) and the old (*M =4.76, SD =0.41*) perceived the competency level of school heads' coaching and mentoring on teachers' classroom management as expert.

When the teachers were classified as to sex, both the male (*M =4.81, SD =0.30*) and the female (*M =4.77, SD =0.39*) perceived the competency level of school heads' coaching and mentoring on teachers' classroom management as expert.

When the teachers were classified as to civil status, the single (*M =4.75, SD =0.48*), the married (*M =4.78, SD =0.34*) and the widow (*M =4.81, SD =0.44*) perceived the competency level of school heads' coaching and mentoring on teachers' classroom management as expert.

When the teachers were classified as to length of service, both the short (*M =4.83, SD =0.33*) and the long (*M =4.70, SD =0.43*) term perceived that the competency level of school heads' coaching and mentoring on teachers' classroom management as expert.

Finally, when the teachers were classified as to educational attainment, the bachelor's degree (*M =4.73, SD =0.41*), master's degree (*M =4.85, SD =0.30*) and doctorate degree (*M =4.86, SD =0.30*) holders perceived the competency level of school heads' coaching and mentoring on teachers' classroom management as expert.

This means that the proficient execution of coaching and mentoring by school heads within the 3rd Congressional District, Schools Division of Iloilo, underscores their adeptness in fulfilling their outlined responsibilities as mandated by the Department of Education. These responsibilities encompass various facets which are crucial for the effective functioning of schools, including setting institutional missions, creating conducive learning environments, implementing curriculum, managing resources, and fostering community engagement.

Further, in accordance with DepEd guidelines, school heads are tasked with providing coaching and mentoring aimed at improving classroom management skills among teachers. This includes facilitating the establishment of safe and supportive learning environments, ensuring fairness and respect, and offering technical assistance to employ successful teaching strategies. Such practices align with the overarching goal of enhancing learning outcomes and fostering a culture of continuous improvement within educational institutions.

Furthermore, Cooper and Scott (2017) stated that classroom management should be considered as top priority for teachers where managing a classroom includes accounting for routines, schedules, physical arrangements, teacher–student relationships, learning dynamics, and instruction. Thus, school heads should encourage teachers by listening, expanding their knowledge, offering advice based on experience, and mutually work through complex issues that require long-term visioning as part of their instructional and transformative leadership.

Table 2 reflects the data.

Table 2

Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management as Perceived by the Entire Group of Teachers and when Classified as to Age, Sex, Civil Status, Length of Service, and Educational Attainment

Category	M	Description	SD
Entire Group	4.77	Expert	0.38
Age			
Young (20-45 Years Old)	4.78	Expert	0.36
Old (46-64 Years Old)	4.76	Expert	0.41
Sex			
Male	4.81	Expert	0.30
Female	4.77	Expert	0.39
Civil Status			
Single	4.75	Expert	0.48
Married	4.78	Expert	0.34
Widowed	4.81	Expert	0.44
Length of Service			
Short	4.83	Expert	0.33
Long	4.70	Expert	0.43
Educational Attainment			
Bachelor's Degree	4.73	Expert	0.41
Master's Degree	4.85	Expert	0.30
Doctorate Degree	4.86	Expert	0.30

Note: the description was made on the basis of the indicated scale: Expert (4.50 5.00), Advanced (3.50-4.49), Intermediate (2.50-3.49), Novice (1.50-2.49), Poor (1.00-1.49).

Competency level of school heads' coaching and mentoring on teachers' instructional delivery as perceived by the entire group of teachers and when classified as to age, sex, civil status, length of service, and educational attainment. The findings revealed that the competency level of school heads' coaching and mentoring on teachers' instructional delivery as perceived by the entire group of teachers was expert (*Mean = 4.74, SD = 0.41*).

When the teachers were classified as to age, both the young (*M =4.74, SD =0.41*) and the old (*M =4.74, SD =0.40*) perceived the competency level of school heads' coaching and mentoring on teachers' instructional delivery as expert.

When the teachers were classified as to sex, both the male (*M =4.75, SD =0.36*) and the female (*M =4.74, SD =0.41*) perceived the competency level of school heads' coaching and mentoring on teachers' instructional delivery as expert.

When the teachers were classified as to civil status, the single (*M =4.74, SD =0.36*), the married (*M =4.74, SD =0.38*) and the widow (*M =4.82, SD =0.45*) perceived the competency level of school heads' coaching and mentoring on teachers' instructional delivery as expert.

When the teachers were classified as to length of service, both the short (*M =4.79, SD =0.39*) and the long (*M =4.68, SD =0.42*) term perceived the competency level of school heads' coaching and mentoring on teachers' instructional delivery as expert.

Finally, when the teachers were classified as to educational attainment, the bachelor's degree (*M =4.71, SD =0.42*), master's degree (*M =4.80, SD =0.38*) and doctorate degree (*M =4.79, SD =0.32*) holders perceived the competency level of school heads' coaching and mentoring on teachers' instructional delivery as expert.

The findings indicated that school heads religiously done coaching and mentoring services among their teachers in instructional delivery. As such they encourage them in applying knowledge of content within and across curriculum teaching areas, emphasize the use of effective verbal and non-verbal classroom strategies to support learner understanding, participation, engagement and achievement of

learners, inspire in adapting and implementing learning programs that ensure relevance and responsiveness to the learners' needs through differentiated instruction which caters the needs of the diverse learners. It accords to the statement of Sole (2015) that effective instructional delivery rooted from regular conduct of coaching and mentoring to the teachers by their respective school heads and how to coach and mentor effectively is important since there are key principles in facilitating learning and development.

Table 3 reflects the data.

Table 3

Competency Level of School Heads' Coaching and Mentoring on Teachers' Instructional Delivery as Perceived by the Entire Group of Teachers and when Classified as to Age, Sex, Civil Status, Length of Service, and Educational Attainment

Category	M	Description	SD
Entire Group	4.74	Expert	0.41
Age			
20-45 Years Old	4.74	Expert	0.41
46-64 Years Old	4.74	Expert	0.40
Sex			
Male	4.75	Expert	0.36
Female	4.74	Expert	0.41
Civil Status			
Single	4.74	Expert	0.49
Married	4.74	Expert	0.38
Widowed	4.82	Expert	0.45
Length of Service			
Short	4.79	Expert	0.39
Long	4.68	Expert	0.42
Educational Attainment			
Bachelor's Degree	4.71	Expert	0.42
Master's Degree	4.80	Expert	0.38

Doctorate Degree	4.79	Expert	0.32

Note: the description was made on the basis of the indicated scale: Expert (4.50 5.00), Advanced (3.50-4.49), Intermediate (2.50-3.49), Novice (1.50-2.49), Poor (1.00-1.49).

Competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as perceived by the entire group of teachers and when classified as to age, sex, civil status, length of service, and educational attainment. The findings revealed that competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as an entire group was expert (*Mean = 4.53, SD = 0.55*).

When the teachers were classified as to age, both the young (*M =4.50, SD =0.58*) and the old (*M =4.58, SD =0.50*) perceived the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as expert.

When the teachers were classified as to sex, both the male (*M =4.61, SD =0.44*) and the female (*M =4.52, SD =0.56*) perceived the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as expert.

When the teachers were classified as to civil status, the single (*M =4.55, SD =0.60*), the married (*M =4.52, SD =0.54*) and the widow (*M =4.65, SD =0.55*) perceived the competency level of school heads' coaching and mentoring on research and innovation engagement as expert.

When teachers were classified as to length of service, the short term (*M =4.58, SD =0.57*) perceived the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as expert while the long (*M =4.47, SD =0.52*) term perceived the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as advanced.

And when the teachers were classified as to educational attainment, both the holder master's degree (*M =4.65, SD =0.49*) and doctorate degree (*M =4.51, SD =0.48*) holders perceived the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as expert while a bachelor's degree (*M =4.48, SD =0.57*) holders perceived the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement as advanced.

The research findings indicate that coaching and mentoring efforts in research and innovation engagement among teachers were effectively implemented. This adherence is rooted in DepEd Order No. 39, s. 2016, which guides the Department and its stakeholders in conducting research and utilizing its outcomes to inform planning, policy development, and program alignment with the institution's vision, mission, and values. Additionally, it aligns with the DepEd Guidelines on Conducting a Project for Innovation in School.

Teachers were supportive in various aspects, including crafting, conducting, and submitting research or innovation proposals. They were also encouraged to participate in seminars and workshops at local, regional, national, and international levels to enhance their knowledge and skills. Furthermore, they were empowered to provide innovative and research-based solutions for the school's challenges and engage in data-driven strategic planning collaboratively.

These practices resonate with the findings of Setyawati, Wijaya, and Widjaja (2022), which demonstrated that principal-led initiatives in creating learning innovations positively influence teacher engagement and student satisfaction. The implementation of both synchronous and asynchronous teaching methods facilitates interaction, thereby enhancing teacher engagement, motivation, confidence, abilities, and understanding. Moreover, it promotes the exchange of learning experiences, ideas, and knowledge among teachers and students, fostering a dynamic learning environment.

Table 4 reflects the data.

Table 4

Competency Level of School Heads' Coaching and Mentoring on Teachers' Research and Innovation Engagement as Perceived by the Entire Group of Teachers and when Classified as to Age, Sex, Civil Status, Length of Service, and Educational Attainment

Category	M	Description	SD
Entire Group	4.53	Expert	0.55

Age			
20-45 Years Old	4.50	Expert	0.58
46-64 Years Old	4.58	Expert	0.50
Sex			
Male	4.61	Expert	0.44
Female	4.52	Expert	0.56
Civil Status			
Single	4.55	Expert	0.60
Married	4.52	Expert	0.54
Widowed	4.65	Expert	0.55
Length of Service			
Short	4.58	Expert	0.57
Long	4.47	Advanced	0.52
Educational Attainment			
Bachelor's Degree	4.48	Advanced	0.57
Master's Degree	4.65	Expert	0.49
Doctorate Degree	4.51	Expert	0.48

Note: the description was made on the basis of the indicated scale: Expert (4.50 5.00), Advanced (3.50-4.49), Intermediate (2.50-3.49), Novice (1.50-2.49), Poor (1.00-1.49).

Inferential Data Analysis

Difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and innovation engagement as perceived by the teachers grouped as to age, sex, civil status, length of service, and educational attainment. The differences in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and in research and innovation engagement when grouped as to age, sex, civil status, length of service, and educational attainment was determined using Multiple Analysis of Variance (MANOVA) set at 0.05 level of significance. All assumptions of the test were met before running the analysis.

Difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and innovation engagement as perceived by the teachers grouped as to age. The difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and innovation engagement when grouped as to age use Pillai's Trace since the p-value of 0.000 was less than 0.05.

Table 5 shows the data.

Table 5

Box's Test of Equality of Covariance Matrices on the Differences in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement Grouped as to Age

Variables	Values
Box's M	37.031
F	6.109
df1	6
df2	588806.986
p-value	.000

The multivariate test revealed that there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and

innovation engagement as perceived by the teachers grouped as to age [*V=0.013, F(3,335)=1.422, p=0.236, Partial* η^2*=0.013]*.

Table 6 shows the data.

Table 6

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement as Perceived by the Teachers Grouped as to Age

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Squared	Eta
Pillai's Trace (Age)	.013	1.422	3.000	335.000	.236	.013	

In addition, the test of between-subjects effect reflects that there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management [*F(1,337)=0.447, p= 0.504, Partial* η^2*= 0.001*], instructional delivery [*F(1,337)=0.002, p= 0.969, Partial* η^2*= 0.000*], and research and innovation engagement [*F(1,337)=1.476, p= 0.225, Partial* η^2*= 0.004*] as perceived by the teachers classified as to age.

This means that the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and innovation engagement does not vary as to age.

The result of the study of Heineke (2013) affirmed that coaching is used in many schools to facilitate teachers' professional learning, including classroom management and instructional delivery regardless of their age. An interpretive analysis was conducted on all data followed by a structural discourse analysis of coaching episodes. Coaching roles, relationships, and mandated testing emerged as influential contextual factors. These coaches affirmed that coaching can lead to teacher learning. However, coaches need to become more knowledgeable about and skillful in their use of verbal moves and coaching stances. Furthermore, the result of the study of Okoye et al. (2021) showed that the users hold services such as tutoring as a major factor that influences their visit and recommendations to the writing centers or coaching programs to enhance the quality of recipients. Moreover, most users of the coaching programs are motivated by the need to gain support with their educational/academic performance and productivity.

In the study of Serdyukov (2017) effective innovations of scale that can help produce the needed high-quality learning outcomes across the system in the US education was badly needed. The primary focus of educational innovations should be on teaching and learning theory and practice, as well as on the learner, parents, community, society, and its culture. Technology applications need a solid theoretical foundation based on purposeful, systemic research, and a sound pedagogy. But one of the critical areas of research and innovation can be cost and time efficiency of the learning. So, coaching and mentoring about educational innovations is required because according to Johnson (2013), coaching and mentoring are strategies for engendering professional development of educators especially on educational innovation. Innovation in any area or aspect can make a change in education in a variety of ways. Ultimately, however, innovations are about quality and productivity of learning (this does not mean we can forget about moral development, which prepares young people for life, work, and citizenship) Camins in Serdyukov (2017).

Furtherance, the findings of this study were supported by the study of Akpan (2015) which revealed that regardless of age in order to adapt in the highly developed and technology- based education, school heads have embraced innovative practices arising from the advent of new technologies in the management of schools.

Table 7 reveals the data.

Table 7

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement as Perceived by the Teachers Grouped as to Age

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	7445.308	1	7445.308	51321.489	.000	.993
	Instructional Delivery	7362.483	1	7362.483	44516.266	.000	.992
	Innovation Engagement	6741.340	1	6741.340	22289.076	.000	.985
Age	Classroom Mngt	.065	1	.065	.447	.504	.001
	Instructional Delivery	.000	1	.000	.002	.969	.000
	Innovation Engagement	.446	1	.446	1.476	.225	.004
Error	Classroom Mngt	48.889	337	.145			
	Instructional Delivery	55.736	337	.165			
	Innovation Engagement	101.926	337	.302			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers grouped as to sex. The differences in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers grouped as to sex used Pillai's Trace since the p-value of 0.041 was less than 0.05.

Table 8 shows the data.

Table 8

Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Sex

Variables	Values
Box's M	13.476
F	2.188
df1	6
df2	32342.092
p-value	.041

The multivariate test reveals that there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by teachers grouped as to sex [$V=0.009$, $F(3,335)=1.063$, $p=0.365$, Partial $\eta^2=0.009$].

Table 9 shows the data.

Table 9

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Sex

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Eta Squared
Pillai's Trace (Sex)	.009	1.063	3.000	335.000	.365	.009

In addition, the test of between-subjects effect reflects that there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management [*F(1,337)=0.601, p= 0.439, Partial* η^2*= 0.002*], instructional delivery [*F(1,337)=0.007, p= 0.935, Partial* η^2*= 0.000*], and innovation engagement [*F(1,337)=1.063, p= 0.303, Partial* η^2*= 0.003*] as perceived by the teachers classified as to sex.

This means that the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement does not vary as to sex.

This was supported by the study of Aderibigbe (2013) that mentoring relationships based on joint decision-making are essential not only for effective teaching and learning but also reinforcing previous studies affirming that teachers and student teachers can learn from each other to further develop their professional knowledge and skills through mentoring process.

The study of Gamage (2021) also showed that coaching and mentoring has been regarded as one of the key learning techniques in the modern learning environment and that the mentor's ability to facilitate learning and encourage mentees to be focused on their goals were the most significant factors that affected student engagement in online learning.

This study also recommends that the higher educational institutes should administer a sound mentoring process that meets the ethical backgrounds to consistently support the continuous improvement of the students in an online learning environment to enhance their engagement in learning activities.

In continuance, coaching and mentoring was of great help in developing hybrid and flexible classroom management, instructional delivery, research and innovation engagement among teachers. Thus, these activities were the most practical and effective but most importantly, it should be done by the experienced and experts.

Table 10 reveals the data.

Table 10

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Sex

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	3513.718	1	3513.718	24231.577	.000	.986
	Instructional Delivery	3448.392	1	3448.392	20850.555	.000	.984
	Innovation Engagement	3192.376	1	3192.376	10542.163	.000	.969
Sex	Classroom Mngt	.087	1	.087	.601	.439	.002
	Instructional Delivery	.001	1	.001	.007	.935	.000

	Innovation Engagement	.322	1	.322	1.063	.303	.003
Error	Classroom Mngt	48.867	337	.145			
	Instructional Delivery	55.735	337	.165			
	Innovation Engagement	102.050	337	.303			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers grouped as to civil status. The differences in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers grouped as to civil status use Pillai's Trace since the p-value of 0.000 was less than 0.05.

Table 11 shows the data.

Table 11

Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers when Grouped as to Civil Status

Variables	Values
Box's M	85.283
F	6.710
df1	12
df2	4474.089
p-value	.000

The multivariate test reveals that there is no significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement when grouped as to civil status [*V=0.006, F (3,335) =0.349, p=0.910, Partial* η^2*=0.003*].

Table 12 shows the data.

Table 12

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Civil Status

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Squared	Eta
Pillai's Trace (Civil Status)	.006	.349	6.000	670.000	.910	.003	

In addition, the test of between-subjects effect reflects that there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management [*F(2,336)=0.193, p= 0.824, Partial* η^2*= 0.001*], instructional delivery [*F(2,336)=0.237, p= 0.789, Partial* η^2*= 0.001*], and innovation engagement [*F(2,336)=0.418, p= 0.659, Partial* η^2*= 0.002*] as perceived by the teachers classified as to civil status.

This implies that the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement do not vary as to civil status.

This was in line with the result of the study of Muraya (2020) wherein it was revealed that tteachers' classroom practices have been identified as the key contributing factor to the low learning outcomes of primary schools. Thus, teacher mentoring was found to have the potential in improving classroom management practices and concluded that teacher mentoring was effective in improving teacher classroom practices and should be integrated into the formal school program.

Table 13 reveals the data.

Table 13

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement as Perceived by the Teachers Grouped as to Civil Status

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	2177.952	1	2177.952	14965.750	.000	.978
	Instructional Delivery	2166.136	1	2166.136	13076.756	.000	.975
	Innovation Engagement	1995.020	1	1995.020	6564.232	.000	.951
Civil Status	Classroom Mngt	.056	2	.028	.193	.824	.001
	Instructional Delivery	.079	2	.039	.237	.789	.001
	Innovation Engagement	.254	2	.127	.418	.659	.002
Error	Classroom Mngt	48.898	336	.146			
	Instructional Delivery	55.658	336	.166			
	Innovation Engagement	102.118	336	.304			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers grouped as to length of service. The differences in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement when grouped as to length of service use Pillai's Trace since the p-value of 0.000 was less than 0.05.

Table 14 shows the data.

Table 14

Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Length of Service

Variables	Values
Box's M	35.073
F	5.788

df1	6
df2	697719.995
p-value	.000

The multivariate test reveals that there was a significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers grouped as to length of service [*V=0.031, F(3,335)=3.589, p=0.014, Partial* η^2*=0.031*].

Table 15 shows the data.

Table 15

4. Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Length of Service

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Squared	Eta
Pillai's Trace (Length of Service)	.031	3.589	3.000	335.000	.014	.031	

In addition, the test of between-subjects effect reflects that there was a significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management [*F(1,337)=10.634, p= 0.001, Partial* η^2*= 0.031*], and instructional delivery [*F(1,337)=6.215, p= 0.013, Partial* η^2*= 0.018*] when classified as to length of service. This means that the competency level of school heads' coaching and mentoring on teachers' classroom management, and instructional delivery varies as to length of service.

But there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement [*F(1,337)=3.136, p= 0.077, Partial* η^2*= 0.009*] when classified as to length of service. This means that the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement are comparable regardless of their length of service.

The study of Al Hilali et al. (2020) explained that coaching and mentoring are part of educational or professional training to develop employees in the professions and play an essential role in the development of competencies. They also summarized the role of the coaches/mentors in helping coaches/mentees achieve their goals by working as a consultant, facilitator, and advisor. As to their experience, support, counseling, evaluation, feedback, and motivation were included in coaching and mentoring sessions. The coach/mentor must meet conditions such as experience and skills to communicate, help in setting goals, analyzing positions, making the necessary plans, and professional skills related to the candidate. All parties in this relationship should trust the other party and act honestly and responsibly by providing the required information and appropriate skills for the success of the activity.

This finding was supported by Gray (2017) which revealed that research-based model for leadership preparation programs to more effectively prepare, support, and sustain new school leaders in the field and profession which combines the concepts of early field experiences like classroom management, research and experiential learning, leadership-focused coaching, and mentoring support, with university faculty and school district leaders and mentors working collaboratively to support novice leaders. Thus, University faculty would provide leadership-focused coaching while prospective leaders are completing coursework once they are placed in school leadership positions. Further, school districts would provide mentoring support by experienced instructional leaders.

In lieu of this, when the instructional leaders or school heads were competent enough in providing coaching and mentoring services, teachers effectively managed and strategized their classroom teaching and learning process and as well as research-based instructions.

Table 16 reveals the data.

Table 16
Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Length of Service

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	7568.860	1	7568.860	53748.142	.000	.994
	Instructional Delivery	7481.614	1	7481.614	46070.657	.000	.993
	Innovation Engagement	6829.002	1	6829.002	22689.625	.000	.985
Length of Service	Classroom Mngt	1.497	1	1.497	10.634	.001	.031
	Instructional Delivery	1.009	1	1.009	6.215	.013	.018
	Innovation Engagement	.944	1	.944	3.136	.077	.009
Error	Classroom Mngt	47.457	337	.141			
	Instructional Delivery	54.727	337	.162			
	Innovation Engagement	101.428	337	.301			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement as perceived by the teachers grouped as to educational attainment. The differences in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement when grouped as to educational attainment use Pillai's Trace since the p-value of 0.004 was less than 0.05.

Table 17 shows the data.

Table 17
Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Educational Attainment

Variables	Values
Box's M	29.907
F	2.389
df1	12
df2	8026.125
p-value	.004

The multivariate test reveals that there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management, instructional delivery, and research and innovation engagement when grouped as to educational attainment [*V=0.034, F(6,670)=1.952, p=0.070, Partial* η^2*=0.017*] in general.

Table 18 shows the data.

Table 18

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Educational Attainment

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Eta Squared
Pillai's Trace (Educ Attainment)	.034	1.952	6.000	670.000	.070	.017

Specifically, the test of between-subjects effect reflects that there was no significant difference in the competency level of school heads' coaching and mentoring on teachers' instructional delivery [*F(2,336)=1.916, p= 0.149, Partial* η^2*= 0.011*] when classified as to civil status. This means that the competency level of school heads' coaching and mentoring on teachers' instructional delivery does not vary as to educational attainment.

However, there was a significant difference in the competency level of school heads' coaching and mentoring on teachers' classroom management [*F(2,336)=3.716, p= 0.025, Partial* η^2*= 0.022*], and innovation engagement [*F(2,336)=3.679, p= 0.026, Partial* η^2*= 0.021*] as perceived by the teachers classified as to civil status. This means that the competency level of school heads' coaching and mentoring on teachers' classroom management, and innovation engagement do vary as to educational attainment. In fact, using Tukey HSD as a post hoc test, the significant differences in the competency level of school heads' coaching and mentoring on teachers' classroom management existed between bachelor's degree and master's degree (*M Diff.=-0.12, p=0.029*). Also, the significant differences in the competency level of school heads' coaching and mentoring on teachers' research and innovation engagement existed between bachelor's degree and master's degree (*M Diff.=-0.18, p=0.019*).

This study was supported by Johnson (2013) which reiterated that providing coaching and mentoring by pointing out feedback works well for creating immediate change and growth in coaches and mentees, the foci of providing active questioning coaching and mentoring leads coaches and mentees to own the feedback they are providing themselves. Empowering coaches and mentees to create their own professional growth and development allowed them to own the long-term professional growth and development they created.

He also added that in presenting myriad academic concepts, practical models, and skills, this project enabled coaches and mentors to choose an approach best suited for their personality, their abilities, the situation, and the individual he or she coaches or mentors. Moreover, presenting varying ideas on coaching and mentoring provides greater overall learning and proffers choices for those who coach and mentor.

Table 19 reveals the data.

Table 19

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Educational Attainment

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	2852.192	1	2852.192	20009.276	.000	.983
	Instructional Delivery	2802.995	1	2802.995	17090.312	.000	.981

	Innovation Engagement	2547.482	1	2547.482	8544.295	.000	.962
Educ Attainment	Classroom Mngt	1.059	2	.530	3.716	.025	.022
	Instructional Delivery	.629	2	.314	1.916	.149	.011
	Innovation Engagement	2.194	2	1.097	3.679	.026	.021
Error	Classroom Mngt	47.895	336	.143			
	Instructional Delivery	55.108	336	.164			
	Innovation Engagement	100.178	336	.298			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

5. Conclusion and Implications

In review of the foregoing findings, the following conclusions were formulated.

1. The school heads are very much equipped with the competencies in coaching and mentoring on teachers' classroom management. This simply shows that school heads really guide teachers on how they manage their classrooms.
2. The school heads are competent enough in coaching and mentoring on teachers' instructional delivery. Hence, school heads perform coaching and mentoring to teachers in the delivery of instruction with high degree of competence.
3. Teachers' innovation engagement is perceived to have been mentored by school heads with high level of competence. Thus, school heads encouraged teachers to be more innovative.
4. The competency level of school heads' coaching and mentoring on teachers' classroom management is comparable regardless of their age, sex, civil status while varies as to length of service and educational attainment. Also, the competency level of school heads' coaching and mentoring on teachers' instructional delivery is comparable regardless of their age, sex, civil status, and educational attainment but varies as to length of service. Moreover, the competency level of school heads' coaching and mentoring on teachers' innovation engagement does not vary when grouped as to age, sex, civil status, and length of service but varies as to educational attainment.

Implications

The findings of the study on school heads coaching and mentoring competence on teachers' classroom management, instructional delivery and research and innovation engagement have important implications for theory and practice.

For theory. The study reveals that school heads within the 3rd Congressional District, School Division of Iloilo exhibit an expert level of competency in coaching and mentoring across various domains, including classroom management, instructional delivery, and research and innovation engagement.

These findings were aligned to the assertion of Heineke (2013) which stated that coaching plays a pivotal role in enhancing teachers' professional learning, particularly in areas such as classroom management and instructional delivery. Moreover, the research of Okoye et al. (2021) emphasized the importance of services like tutoring in influencing users' engagement with coaching and mentoring programs, underscoring the need for support in improving educational outcomes.

Furthermore, the study highlights that demographic factors such as age, sex, civil status, length of service, and educational attainment did not significantly impact the competency level of school heads in coaching and mentoring. This finding resonates with the research of Gray (2017), which emphasizes the importance of research-based leadership preparation programs to effectively support new school leaders, incorporating concepts such as classroom management, research, experiential learning, coaching,

and mentoring.

The theoretical framework of Vygotsky's Scaffolding theory underpins this study, emphasizing the collaborative learning process wherein educators with greater knowledge scaffold the material for those with less expertise, facilitating knowledge expansion. Additionally, the experiential learning theory underscores the importance of reflection and active engagement in the learning process, particularly in areas such as classroom teaching and instructional delivery, leading to positive changes in professional practice.

These implications for theory underscore the significance of coaching and mentoring in promoting professional growth and enhancing educational outcomes, irrespective of demographic factors, while also emphasizing the importance of collaborative learning frameworks and experiential learning processes in facilitating effective teaching and learning practices.

For practice. The findings of this study underscore the expert level of competency demonstrated by school heads within the 3rd Congressional District, Schools Division of Iloilo, particularly in coaching and mentoring teachers in classroom management, instructional delivery, research, and innovation engagement.

These results indicate that school heads are highly skilled in providing technical assistance through coaching and mentoring sessions, aiding teachers in developing improvement plans and implementing directed services related to various educational aspects. Specifically, they assist in establishing conducive learning environments, promoting fairness and respect, and employing effective strategies to motivate learners to take ownership of their learning.

Furthermore, the study highlights school heads' role in encouraging teachers to apply their content knowledge effectively, employ diverse instructional strategies, and adapt learning programs to meet the needs of diverse learners. Additionally, they facilitate teachers' involvement in research and innovation activities, providing support for proposal development, attending seminars, and implementing innovative solutions to address school challenges.

Notably, demographic factors such as age, sex, civil status, length of service, and educational attainment do not influence the coaching and mentoring competency of school heads. This implies that personal characteristics do not hinder school heads' effectiveness in their roles, emphasizing the importance of consistent support and guidance regardless of individual differences.

Implications for practice suggest that school heads, equipped with expert competency, should demonstrate persistence, resilience, and a commitment to translating gained knowledge into action. Additionally, the absence of significant differences in coaching and mentoring across various factors highlights the effectiveness of feedback-based coaching approaches, empowering both coaches and mentees to drive their professional growth and development.

Overall, these findings underscore the critical role of school heads in fostering a culture of continuous improvement and innovation within educational settings, highlighting the importance of effective coaching and mentoring practices in enhancing teaching and learning outcomes.

Tables

Table 1

Distribution of the Respondents

Category	f	%
Entire Group	338	100%
Age		
Young	201	59
Old	137	41
Sex		
Male	44	13

Female	294	87
Civil Status		
Single	74	22
Married	250	74
Widow	14	4
Length of Service		
Short	190	56
Long	148	44
Educational attainment		
Baccalaureate Degree	218	64
Master's Degree	101	30
Doctoral Degree	19	6

Table 2

Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management as Perceived by the Entire Group of Teachers and when Classified as to Age, Sex, Civil Status, Length of Service, and Educational Attainment

Category	M	Description	SD
Entire Group	4.77	Expert	0.38
Age			
Young (20-45 Years Old)	4.78	Expert	0.36
Old (46-64 Years Old)	4.76	Expert	0.41
Sex			
Male	4.81	Expert	0.30
Female	4.77	Expert	0.39
Civil Status			
Single	4.75	Expert	0.48
Married	4.78	Expert	0.34
Widowed	4.81	Expert	0.44
Length of Service			
Short	4.83	Expert	0.33
Long	4.70	Expert	0.43
Educational Attainment			
Bachelor's Degree	4.73	Expert	0.41
Master's Degree	4.85	Expert	0.30
Doctorate Degree	4.86	Expert	0.30

Note: the description was made on the basis of the indicated scale: Expert (4.50 5.00), Advanced (3.50-4.49), Intermediate (2.50-3.49), Novice (1.50-2.49), Poor (1.00-1.49).

Table 3

Table 3

Competency Level of School Heads' Coaching and Mentoring on Teachers' Instructional Delivery as Perceived by the Entire Group of Teachers and when Classified as to Age, Sex, Civil Status, Length of Service, and Educational Attainment

Category	M	Description	SD
Entire Group	4.74	Expert	0.41
Age			
20-45 Years Old	4.74	Expert	0.41
46-64 Years Old	4.74	Expert	0.40

Sex			
Male	4.75	Expert	0.36
Female	4.74	Expert	0.41
Civil Status			
Single	4.74	Expert	0.49
Married	4.74	Expert	0.38
Widowed	4.82	Expert	0.45
Length of Service			
Short	4.79	Expert	0.39
Long	4.68	Expert	0.42
Educational Attainment			
Bachelor's Degree	4.71	Expert	0.42
Master's Degree	4.80	Expert	0.38
Doctorate Degree	4.79	Expert	0.32

Note: the description was made on the basis of the indicated scale: Expert (4.50 5.00), Advanced (3.50-4.49), Intermediate (2.50-3.49), Novice (1.50-2.49), Poor (1.00-1.49).

Table 4

Competency Level of School Heads' Coaching and Mentoring on Teachers' Research and Innovation Engagement as Perceived by the Entire Group of Teachers and when Classified as to Age, Sex, Civil Status, Length of Service, and Educational Attainment

Category	M	Description	SD
Entire Group	4.53	Expert	0.55
Age			
20-45 Years Old	4.50	Expert	0.58
46-64 Years Old	4.58	Expert	0.50
Sex			

Male	4.61	Expert	0.44
Female	4.52	Expert	0.56
Civil Status			
Single	4.55	Expert	0.60
Married	4.52	Expert	0.54
Widowed	4.65	Expert	0.55
Length of Service			
Short	4.58	Expert	0.57
Long	4.47	Advanced	0.52
Educational Attainment			
Bachelor's Degree	4.48	Advanced	0.57
Master's Degree	4.65	Expert	0.49
Doctorate Degree	4.51	Expert	0.48

Note: the description was made on the basis of the indicated scale: Expert (4.50 5.00), Advanced (3.50-4.49), Intermediate (2.50-3.49), Novice (1.50-2.49), Poor (1.00-1.49).

Table 5

Box's Test of Equality of Covariance Matrices on the Differences in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement Grouped as to Age

Variables	Values
Box's M	37.031
F	6.109
df1	6
df2	588806.986
p-value	.000

Table 6

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement as Perceived by the Teachers Grouped as to Age

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Eta Squared
Pillai's Trace (Age)	.013	1.422	3.000	335.000	.236	.013

Table 7

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement as Perceived by the Teachers Grouped as to Age

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	7445.308	1	7445.308	51321.489	.000	.993
	Instructional Delivery	7362.483	1	7362.483	44516.266	.000	.992

	Innovation Engagement	6741.340	1	6741.340	22289.076	.000	.985
Age	Classroom Mngt	.065	1	.065	.447	.504	.001
	Instructional Delivery	.000	1	.000	.002	.969	.000
	Innovation Engagement	.446	1	.446	1.476	.225	.004
Error	Classroom Mngt	48.889	337	.145			
	Instructional Delivery	55.736	337	.165			
	Innovation Engagement	101.926	337	.302			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Table 8

Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Sex

Variables	Values
Box's M	13.476
F	2.188
df1	6
df2	32342.092
p-value	.041

Table 9

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Sex

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Eta Squared
Pillai's Trace (Sex)	.009	1.063	3.000	335.000	.365	.009

Table 10

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Sex

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	3513.718	1	3513.718	24231.577	.000	.986
	Instructional Delivery	3448.392	1	3448.392	20850.555	.000	.984

	Innovation Engagement	3192.376	1	3192.376	10542.163	.000	.969
Sex	Classroom Mngt	.087	1	.087	.601	.439	.002
	Instructional Delivery	.001	1	.001	.007	.935	.000
	Innovation Engagement	.322	1	.322	1.063	.303	.003
Error	Classroom Mngt	48.867	337	.145			
	Instructional Delivery	55.735	337	.165			
	Innovation Engagement	102.050	337	.303			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Table 11

Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers when Grouped as to Civil Status

Variables	Values
Box's M	85.283
F	6.710
df1	12
df2	4474.089
p-value	.000

Table 12

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Civil Status

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Eta Squared
Pillai's Trace (Civil Status)	.006	.349	6.000	670.000	.910	.003

Table 13

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Innovation Engagement as Perceived by the Teachers Grouped as to Civil Status

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	2177.952	1	2177.952	14965.750	.000	.978
	Instructional Delivery	2166.136	1	2166.136	13076.756	.000	.975

	Innovation Engagement	1995.020	1	1995.020	6564.232	.000	.951
Civil Status	Classroom Mngt	.056	2	.028	.193	.824	.001
	Instructional Delivery	.079	2	.039	.237	.789	.001
	Innovation Engagement	.254	2	.127	.418	.659	.002
Error	Classroom Mngt	48.898	336	.146			
	Instructional Delivery	55.658	336	.166			
	Innovation Engagement	102.118	336	.304			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Table 14

Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Length of Service

Variables	Values
Box's M	35.073
F	5.788
df1	6
df2	697719.995
p-value	.000

Table 15

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Length of Service

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Eta Squared
Pillai's Trace (Length of Service)	.031	3.589	3.000	335.000	.014	.031

Table 16

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Length of Service

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	7568.860	1	7568.860	53748.142	.000	.994
	Instructional Delivery	7481.614	1	7481.614	46070.657	.000	.993

	Innovation Engagement	6829.002	1	6829.002	22689.625	.000	.985
Length of Service	Classroom Mngt	1.497	1	1.497	10.634	.001	.031
	Instructional Delivery	1.009	1	1.009	6.215	.013	.018
	Innovation Engagement	.944	1	.944	3.136	.077	.009
Error	Classroom Mngt	47.457	337	.141			
	Instructional Delivery	54.727	337	.162			
	Innovation Engagement	101.428	337	.301			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Table 17

Box's Test of Equality of Covariance Matrices on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Educational Attainment

Variables	Values
Box's M	29.907
F	2.389
df1	12
df2	8026.125
p-value	.004

Table 18

Multivariate Test of Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Educational Attainment

Effect	Value	F	Hypothesis df	Error df	p-value	Partial Eta Squared
Pillai's Trace (Educ Attainment)	.034	1.952	6.000	670.000	.070	.017

Table 19

Tests of Between-Subjects Effects on the Difference in the Competency Level of School Heads' Coaching and Mentoring on Teachers' Classroom Management, Instructional Delivery, and Research and Innovation Engagement as Perceived by the Teachers Grouped as to Educational Attainment

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
Intercept	Classroom Mngt	2852.192	1	2852.192	20009.276	.000	.983

	Instructional Delivery	2802.995	1	2802.995	17090.312	.000	.981
	Innovation Engagement	2547.482	1	2547.482	8544.295	.000	.962
Educ Attainment	Classroom Mngt	1.059	2	.530	3.716	.025	.022
	Instructional Delivery	.629	2	.314	1.916	.149	.011
	Innovation Engagement	2.194	2	1.097	3.679	.026	.021
Error	Classroom Mngt	47.895	336	.143			
	Instructional Delivery	55.108	336	.164			
	Innovation Engagement	100.178	336	.298			
Total	Classroom Mngt	7769.058	339				
	Instructional Delivery	7682.115	339				
	Innovation Engagement	7063.760	339				

Figure

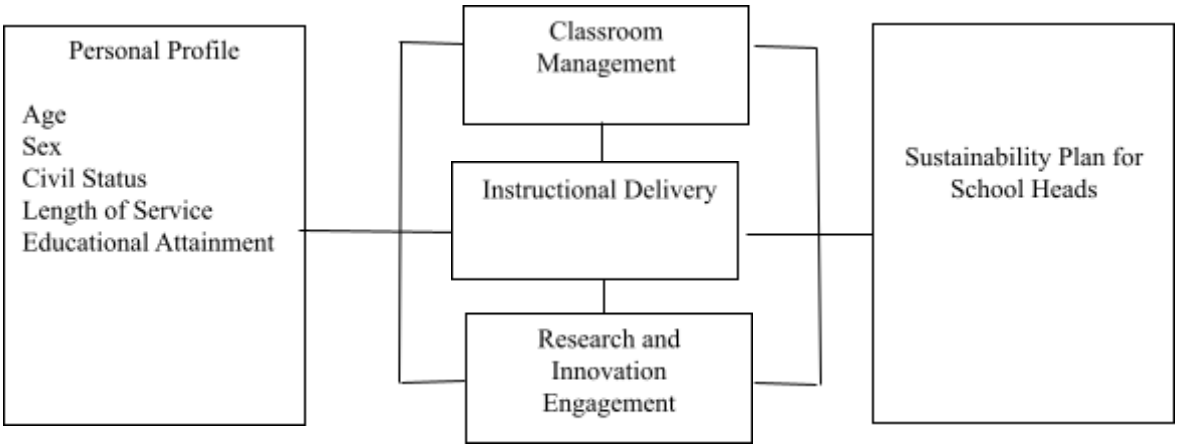


Figure 1.
Relationships on School Heads' Coaching and Mentoring Competence on Teachers' Classroom Management, Instructional Delivery, Research and Innovation Engagement

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